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ABSTRACT

The data in these tables are collected biennially through the National Science Foundation's (NSF's) Congressionally mandated Survey of Scientific and Engineering Research Facilities. The 1999 survey was sent to research-performing colleges and universities in the United States and to U.S. biomedical research institutions that received National Institutes of Health (NIH) funding in fiscal year 1999. These tables provide data on the status of research facilities needed to conduct science and engineering (S&E) research at U.S. colleges, universities, and nonprofit biomedical research institutions. Data on the amount, quality, adequacy, and condition of S&E research space are presented for the year 1999. Data on the construction and repair/renovation of S&E research facilities and their costs are presented for the years 1998-2001. The historical tables present data for the years 1988-99. Also included are technical notes, lists of institutions, and the survey instrument and accompanying materials. (EV)

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Scientific and Engineering Research Facilities

1999

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Detailed Statistical Tables

EF 005 851

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences
National Science Foundation

July 2001

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Scientific and Engineering Research Facilities

1999

Detailed Statistical Tables

Leslie Christovich, Project Officer

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences
National Science Foundation July 2001

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GENERAL NOTES

The data in these tables are collected biennially through the National Science Foundation's (NSF) congressionally mandated Survey of Scientific and Engineering Research Facilities. The 1999 survey was sent to research-performing colleges and universities in the U.S. and to U.S. biomedical research institutions that received NIH funding in fiscal year 1999. Research-performing academic institutions are defined as colleges and universities reporting more than $150,000 in research and development (R&D) expenditures and Historically Black Colleges and Universities with any R&D expenditures. Each academic institution's level of R&D expenditures is determined by the 1998 NSF Survey of Research and Development Expenditures at Universities and Colleges. Biomedical research institutions are independent research hospitals and nonprofit biomedical research organizations.

These tables provide data on the status of research facilities needed to conduct science and engineering (S&E) research at U.S. colleges, universities and nonprofit biomedical research institutions. Data on the amount, quality, adequacy and condition of S&E research space are presented for the year 1999. Data on the construction and repair/renovation of S&E research facilities and their costs are presented for the years 1998-2001. The historical tables present data for the years 1988-99.

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SECTION A.

TECHNICAL NOTES

SECTION A. TECHNICAL NOTES

SCOPE OF SURVEY

The data presented in these tables are collected biennially through the National Science Foundation's (NSF) congressionally mandated Survey of Scientific and Engineering Research Facilities (Facilities survey). The survey originated in 1986 in response to Congress' concern about the state of research facilities at the Nation's colleges and universities. NSF's 1984 reauthorization legislation, P.L. 99-159, mandated a data collection and analytic system to identify and assess the research facilities needs of academic institutions. The legislation stated:

> The National Science Foundation is authorized to design, establish, and maintain a data collection and analysis capability in the Foundation for the purpose of identifying and assessing the research facilities needs of universities and colleges. The needs of universities by major field of science and engineering, for construction and modernization of research laboratories, including fixed equipment and major research equipment, shall be documented. University expenditures for the construction and modernization of research facilities, the sources of funds, and other appropriate data shall be collected and analyzed. The Foundation, in conjunction with other appropriate Federal agencies, shall report the results to Congress. (42 U.S.C. 1886)

The National Institutes of Health (NIH) have cosponsored all cycles of the survey. Each survey cycle NIH has added a limited set of questions particularly focused on animal research facilities.

POPULATION

The survey is sent to research-performing colleges and universities in the U.S. Research-performing colleges and universities are defined as meeting one of three criteria: 1) offer doctorates in S&E fields; 2) report at least $150,000 in research and development (R&D) expenditures for fiscal year 1998; or 3) are an Historically Black College or University (HBCU) with any R&D expenditures. The population of academic institutions for this survey is derived from the 1998 NSF Survey of Research and Development Expenditures at Universities and Colleges. The six uniformed service academies are excluded from the population.

The survey is also sent to nonprofit biomedical research organizations. Biomedical research organizations are part of the eligible population if they are an independent research hospital or a nonprofit biomedical research organization. The population of biomedical research and organizations is derived from a 1998 list of NIH grantees receiving at least $150,000 in funding from NIH.

DATA DEFINITIONS

Research is all science and engineering R&D activities that is budgeted and accounted for. Research can be funded by the institution itself, the Federal Government, state governments, foundations, corporations or other sources.

Research space includes: research laboratories; controlled environment space such as clean or white rooms; technical support space such as carpentry and machine shops; space for laboratory animals, such as animal production colonies, holding rooms, isolation and germ-free rooms; faculty or staff offices to the extent that they are used for research; department libraries, to the extent that they are used for research; fixed equipment, such as fume hoods and benches; single pieces of non-fixed equipment each costing at least $1 million, such as MRI equipment; and leased space. It does not include: space that is designated as federally funded research and development centers (FFRDCs); space used by faculty but not administered by the institution such as research space at non-university hospitals; and space administered by the institution but is leased to others for their use.

Biomedical research space is space for research in the biological sciences in medical schools, biological sciences not in medical schools, medical sciences in medical schools and medical sciences not in medical schools.

Net assignable square feet (NASF) is the sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF is measured from the inside faces of walls.

Research program commitments are all research activities of an institution that are budgeted, approved, and funded. It includes current faculty and staff or those to whom offers have been made; grants awarded, whether or not research has actually begun; and, programs which have been approved.

Repair/renovation is both major and minor repair/renovation of existing facilities in deteriorated condition; capital improvements on facilities; or conversion of facilities.

Major repair/renovation is an extensive repair/renovation project that results in facilities that are equivalent, or nearly equivalent, to new facilities in the ability to support S&E research.

New construction is construction of a new building or additions to an existing building.

Central campus infrastructure refers primarily to systems that exist between the buildings of a campus (excluding the area within five feet of any individual building foundation) and to the non-architectural elements of campus design (central wiring for telecommunications systems, storage or disposal facilities, electrical wiring between buildings, central heating and air exchange systems, drains and sewers, roadways, walkways, parking systems, etc.)

Deferred project is a repair/renovation or new construction project that meets all of the following criteria: 1) is necessary to meet current S&E research program commitments; 2) is not scheduled; 3) does not have funding; 4) is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments.

Institutional plan is an institution's approved plan, including goals, strategies, steps, and budgets, for fulfilling the institution's mission during a specific time period.

Animal housing space is all general animal housing (for example, cage rooms, stalls, wards, isolation rooms) and maintenance areas (for example, feed storage rooms, cage-washing rooms, shops, storage), if these areas directly support research.

Animal laboratory space is all animal laboratory space used exclusively for research activities, such as bench space, animal production colonies, holding rooms, germ-free rooms, surgical facilities and recovery rooms.

Animal research space is the combined amount of animal laboratory and animal housing space.

CHANGES IN REPORTING

Since these data were first collected in 1986, several changes have been made to the population, the sample, and some of the survey questions. The 1999 cycle changes include:

- The minimum level of R&D expenditures for eligible research-performing academic institutions is increased from institutions with at least $50,000 in R&D expenditures to institutions with at least $150,000 in R&D expenditures (except HBCUs). For biomedical organizations the minimum level in NIH funding received increases from at least $50,000 to at least $150,000 in funding.

- A census of eligible institutions is surveyed. In prior years, eligible institutions were sampled using a stratified sampling design.

- The animal research facilities survey questions changed over survey cycles to correspond to the changes in the issues associated with animal research facilities. For the 1999 cycle, most of the animal research facilities questions are modeled after the general S&E survey questions regarding the amount of space, the condition of space, the new construction and repair/renovation of space; and the costs of new construction and repair/renovation.

ANALYTIC DEFINITIONS

Several analytic subgroups are presented in the table data. These subgroups are defined as follows.

REGIONS

In some tables, states are divided into the four U.S. regions defined by the U.S.Census Bureau. These regions are:

- Northeast: ME, NH, VT, MA, RI, CT, NY, NJ, PA.
- Midwest: OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE, KS.
- South: DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL, MS, AR, LA, OK, TX.
- West: MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK, HI.

EPSCoR AND IDeA

In addition to the regional groupings, in some tables, states are grouped according to their eligibility for NSF or NIH funding. States are eligible for the NSF Experimental Program to Stimulate Competitive Research (EPSCoR), if they have historically received less Federal R&D funding than other states. The purpose of the program is to increase the R&D funding competitiveness of these states by assisting in the development and utilization of science and technology resources located at the major universities.

NIH sponsors the Institutional Development Award (IDeA) program. This program was established in 1993 in order to enhance the competitiveness for research funding of institutions located in states with historically low aggregate success rates for NIH grant applications. The goal is to broaden the geographic distribution of NIH funding for health research.

The states currently eligible for these programs are as follows:

- EPSCoR: AL, AK, AR, ID, KS, KY, LA, ME, MS, MT, NE, NV, ND, OK, PR, SC, SD, VT, WV, WY.
- IDeA: AK, AR, DE, HI, ID, KS, KY, LA, ME, MS, MT, NH, NM, NE, NV, ND, OK, RI, SC, SD, VT, WV, WY and Puerto Rico.

MINORITY DESIGNATIONS

The survey included subgroups to identify minority-serving institutions, including Historically Black Colleges and Universities (HBCUs) and Hispanic-Serving institutions (HSIs). According to the Department of Education, HBCUs are postsecondary institutions of higher education founded before 1964 whose educational mission has historically been the education of black Americans. The HBCU list (updated August 1999) was provided by the White House Initiative on HBCUs. The original Survey of Scientific and Engineering Research Facilities included 29 HBCUs. These institutions have been identified separately for trend analysis.

Hispanic-serving institutions (HSIs) are defined as any accredited and degree-granting institution of higher education with 25 percent or greater total Hispanic undergraduate full-time equivalent enrollment. An institution may be both an HBCU and an HSI. A list maintained by the Department of Education (revised March 27, 2000) is the source of information on this group of schools. See Appendix C for a List of Institutions surveyed.

OTHER DEFINITIONS

Two other analytic subgroups are used in the tables. **Field leaders** are defined as the 10 institutions with the most research space in a given field. **Institutional control** is defined as private or public institutions.

DATA CONSIDERATIONS

Users should be aware of several analytic issues associated with the data.

- Definition of medical schools. In tables 1 through 42, institutions are defined as having space 'in medical schools' if respondents indicated that they had space in either the biological sciences in medical schools or the medical sciences in medical schools, regardless of whether the medical schools are accredited. In tables 47 through 58, data are only included for academic institutions with medical schools accredited by the American Association of Medical Colleges (See Appendix C). Both sets of tables include standalone medical schools. In table data from prior survey cycles, the former definition of medical schools is used for all tables.

- Source of funds. Caution must be exercised when examining the data on source of funds. Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for the period 1998-99. Consequently, the table data for sources of funding may not be consistent with table data on new construction and repair/renovation costs.

- Quality of research space. Respondents were asked to estimate the percent of their research space in each S&E field according to four quality designations (i.e., suitable for the most scientifically competitive research, suitable for most levels of research, requires major repair or renovation, requires replacement). These percents were multiplied by the NASF in each field from question 1 in order to compute the total NASF for each field quality category. The sums of these NASF field totals are presented in some of the tables. The percentages shown are the fractions of this total NASF, summed across all institutions, that fall into the quality category. For example, suppose that ratings were received from institutions that had a total of 11.4 million NASF for the biological sciences in medical schools. Suppose further that 5.5 million NASF (48 percent) was rated as 'suitable for the most scientifically competitive research.' The table would show that 48 percent of the NASF in the biological sciences in medical schools was 'suitable for the most scientifically competitive research.' The total across all fields is the sum of the rated areas in all fields for each level of quality, divided by the total rated area.

RESPONSE RATE

The 1999 survey was mailed to academic institutions in November of 1999 and data collection ended on July 30, 2000. For biomedical organizations, surveys were mailed in December of 1999 and data collection ended August 31, 2000.

Of the 529 eligible academic institutions, 71 percent returned surveys. Of the 254 eligible biomedical institutions, 61 percent returned surveys.

WEIGHTING

The academic survey respondents are divided into nine strata. These strata are:

1) the top 100 institutions based on 1998 R&D expenditures;

2) the 29 HBCUs in the survey since 1988;

3) the other 35 HBCUs not included in the original survey;

4) institutions that were not HBCUs but had at least 25 percent black student enrollment;

5) institutions enrolling at least 25 percent Hispanic students;

6) public, doctoral-granting institutions;

7) private, doctoral-granting institutions;

8) public, non-doctoral granting institutions; and

9) private, non-doctoral institutions. In addition, if institutions within a stratum housed an accredited medical school, a separate stratum for these schools was created. For example, strata 1a became top 100 institutions with medical schools and strata 1b became the remaining top 100 institutions.

Biomedical institutions were stratified into two strata of hospitals and other nonprofit research institutions.

Within each stratum, a weight was computed to be the quotient of the population size for that stratum divided by the number of institutions responding. The weights ranged from 1.00 to 1.77. The average weight was 1.40.

ITEM NONRESPONSE

Data are imputed for survey questions 1, 5 and 7 for those respondents who only provided partial data. To impute the missing data for question 1 on instructional and research space, similar institutions to those with the missing data were identified. Similar institutions were identified by the weighting stratum to which they belonged and by the total amount of construction and repair/renovation funds in Question 7. For each institution with missing data, a similar respondent was randomly selected and question 1 data was imputed from that institution's information.

For question 5 on the dollar amount of repair/renovation and new construction begun in 1998 or 1999, data are imputed by sorting on 1) whether the institution is private or public; 2) their weighting stratum; and 3) total research area.

Data are also imputed for question 7 on the source of funds for repair/renovation and construction. For repair/renovation costs, institutions are sorted by 1) whether the institution is private or public; 2) their weighting stratum and 3) their total repair costs in question 5. If the repair costs are also missing, total research area is used. For construction costs, institutions are sorted by 1 and 2 above and then by total construction costs in question 5. If the construction costs are also missing, total research area is used.

DATA AVAILABILITY

Data published in this report are also available on the World Wide Web and can be found at http://www.nsf.gov/sbe/srs/stats.htm. Due to a pledge of confidentiality with the responding institutions, individual institutional data are not available; all data are in aggregate form only.

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Table 1. Academic science and engineering research space, by field: 1988-99[1]

Field	Net assignable square feet [in millions]							Percent change[2]
	1988	1990	1992	1994	1996	1998	1999	1998-99
All fields	112	116	122	127	136	143	151	5
Biological sciences								
In medical schools	8	9	11	11	11	12	13	9
Outside medical schools	16	18	17	17	19	19	19	0
Medical sciences								
In medical schools	14	15	16	17	18	18	19	4
Outside medical schools	5	5	6	6	7	7	8	9
Agricultural sciences	18	21	20	20	22	25	25	0
Engineering	16	17	18	21	22	23	26	12
Physical sciences	16	16	16	17	18	18	19	6
Earth, atmospheric, and ocean sciences	6	6	7	7	7	8	8	9
Social sciences	3	3	3	3	4	5	5	4
Psychology	3	3	3	3	3	3	4	5
Computer sciences	1	1	2	2	2	2	2	21
Mathematics	1	1	1	1	1	1	1	5
Other sciences	4	2	2	2	2	3	3	7

[1] In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1998 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year of the current amount of space.

[2] Comparisons are based on institutions that provided data for both years. Calculations are based on unrounded numbers.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 2. Geographic distribution of academic science and engineering research space, by field: 1999[1]

Field	Net assignable square feet [in millions]					EPSCoR states[2]	IDeA states[3]
	All states	Northeast	Midwest	South	West		
All fields	150.5	28.3	38.3	49.1	34.3	16.3	17.8
Biological sciences							
In medical schools	12.7	3.0	3.2	4.7	1.6	1.3	1.2
Outside medical schools	19.5	3.7	5.1	5.3	5.3	2.1	2.1
Medical sciences							
In medical schools	18.9	2.7	4.8	7.6	3.8	1.8	1.6
Outside medical schools	7.7	1.9	2.1	2.0	1.7	0.8	0.8
Agricultural sciences	24.6	3.1	8.5	8.6	4.4	3.4	4.4
Engineering	25.5	4.4	5.5	9.6	6.0	3.3	2.9
Physical sciences	19.2	4.1	4.4	5.4	5.2	1.6	2.0
Earth, atmospheric, and ocean sciences	8.2	1.7	1.4	2.3	2.8	0.9	1.4
Social sciences	4.8	1.3	1.0	1.3	1.2	0.4	0.5
Psychology	3.5	0.9	0.8	0.8	1.0	0.3	0.4
Computer sciences	2.4	0.8	0.6	0.4	0.6	0.1	0.2
Mathematics	0.9	0.3	0.2	0.2	0.2	0.1	0.1
Other sciences	3.4	1.1	0.8	0.9	0.6	0.3	0.3

[1] Guam and Puerto Rico are excluded from the regions but are included in other table columns where appropriate.

[2] States in which institutions are eligible for the National Science Foundation's Experimental Program to Stimulate Competitive Research.

[3] States in which institutions are eligible for grants from the Institutional Development Award program of the National Institutes of Health.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 3. Institutional distribution of academic science and engineering research space, by field and type of institution: 1999

Field	Net assignable square feet [in millions]					
			Control		Minority-serving institutions	
	All institutions	Field leaders[1]	Private	Public	HBCUs	Hispanic-serving institutions[2]
All fields	150.5	N/A	37.1	113.4	3.6	3.5
Biological sciences						
In medical schools	12.7	2.7	6.0	6.7	0.2	0.2
Outside medical schools	19.5	3.7	4.4	15.1	0.3	0.4
Medical sciences						
In medical schools	18.9	5.4	7.3	11.7	0.1	0.2
Outside medical schools	7.7	2.4	1.6	6.0	0.1	0.1
Agricultural sciences	24.6	11.7	1.3	23.3	0.6	0.2
Engineering	25.5	6.1	5.5	20.0	1.6	1.1
Physical sciences	19.2	3.2	5.4	13.8	0.3	0.5
Earth, atmospheric, and ocean sciences	8.2	2.2	1.4	6.7	0.1	0.1
Social sciences	4.8	1.6	0.8	4.0	0.0	0.1
Psychology	3.5	0.6	1.0	2.6	0.0	0.1
Computer sciences	2.4	0.8	1.0	1.5	0.2	0.1
Mathematics	0.9	0.2	0.3	0.6	0.0	0.0
Other sciences	3.4	1.5	1.2	2.1	0.0	0.2

[1] Field leaders are the 10 institutions with the most research space in a given field.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities
N/A = not applicable

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 4. Institutions with leased academic science and engineering research space, by field and type of institution: 1999

Field	Percent of institutions						
		Doctorate-granting institutions		Control		Minority-serving institutions	
	All institutions	All	Field leaders[1]	Public	Private	HBCUs	Hispanic-serving institutions[2]
All fields	26.9	37.8	N/A	28.5	24.6	8.8	14.0
Biological sciences							
In medical schools	7.8	11.3	60.0	8.0	7.5	2.5	0.0
Outside medical schools	5.3	8.0	40.0	7.4	2.2	0.0	0.0
Medical sciences							
In medical schools	12.8	18.6	90.0	11.4	14.8	4.9	5.9
Outside medical schools	7.4	10.3	50.0	9.6	4.1	2.7	0.0
Agricultural sciences	3.4	4.4	40.0	4.9	1.1	0.0	0.0
Engineering	8.9	12.3	50.0	12.3	3.8	2.4	4.9
Physical sciences	3.5	5.3	20.0	4.9	1.4	0.0	0.0
Earth, atmospheric, and ocean sciences	4.8	6.6	20.0	8.0	0.0	0.0	0.0
Social sciences	4.0	5.4	30.0	4.8	2.8	0.0	0.0
Psychology	2.6	3.9	10.0	2.3	3.1	0.0	0.0
Computer sciences	2.5	3.7	30.0	2.7	2.3	0.0	5.4
Mathematics	1.2	1.7	10.0	1.5	0.6	0.0	0.0
Other sciences	3.5	3.9	30.0	2.9	4.6	2.1	6.1

[1] Field leaders are the 10 institutions with the most research space in a given field.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities
N/A = not applicable

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 5. Leased academic science and engineering research space, by type of institution: 1999

Type of institution	Total S&E research space [NASF in millions]	Leased S&E research space [NASF in millions]	Percent of space leased
All academic institutions	150.5	7.5	5.0
Doctorate-granting institutions	144.4	7.5	5.2
Nondoctorate-granting institutions	6.1	0.0	0.0
Control			
Public	113.4	5.7	5.0
Private	37.1	1.9	5.1
Minority-serving institutions	7.1	0.1	1.3
HBCUs	3.6	0.0	1.1
Hispanic-serving institutions[1]	3.5	0.1	1.4

[1] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet
S&E = science and engineering

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 6. Quality of academic science and engineering research space, by field: 1999

Field	Total NASF [in millions][1]	Percent of net assignable square feet (NASF)			
		Suitable for		Requiring	
		The most scientifically competitive research	Most levels of research	Major repair or renovation	Replacement
All fields	142.7	40.9	33.2	19.7	6.2
Biological sciences					
In medical schools	11.4	47.9	28.5	17.5	6.1
Outside medical schools	18.7	41.2	30.4	22.2	6.2
Medical sciences					
In medical schools	17.7	43.7	28.3	21.4	6.6
Outside medical schools	7.1	31.1	42.6	20.0	6.3
Agricultural sciences	23.9	32.6	34.4	23.0	10.1
Engineering	24.2	43.1	35.1	17.0	4.8
Physical sciences	18.4	40.5	35.7	19.2	4.6
Earth, atmospheric, and ocean sciences	7.4	38.7	34.2	21.0	6.0
Social sciences	4.2	43.3	38.5	14.7	3.4
Psychology	3.4	38.5	38.7	18.6	4.2
Computer sciences	2.3	42.7	34.7	15.4	7.2
Mathematics	0.9	52.4	32.9	11.7	3.1
Other sciences	2.8	69.8	18.6	9.2	2.4

[1] NASF is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

NOTES: Components may not add to totals due to rounding.
Quality was assessed relative to current research program.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 7. Academic institutions requiring major repair/renovation or replacement of science and engineering research space, by field and amount of space: 1999

Field	Percent of institutions requiring[1]			
	Major repair or renovation		Replacement	
	25 percent or more of total research space	10 percent or less of total research space	25 percent or more of total research space	10 percent or less of total research space
All fields	32.1	37.0	7.6	80.4
Biological sciences				
In medical schools	23.2	58.7	2.1	97.0
Outside medical schools	36.3	43.4	8.5	84.4
Medical sciences				
In medical schools	25.3	55.5	1.3	96.7
Outside medical schools	22.7	56.4	2.4	94.5
Agricultural sciences	26.9	44.0	2.2	95.6
Engineering	22.1	51.3	5.0	92.6
Physical sciences	31.9	43.6	7.2	87.5
Earth, atmospheric, and ocean sciences	30.2	52.2	4.2	92.0
Social sciences	21.2	63.0	4.0	93.9
Psychology	26.9	62.1	5.6	91.1
Computer sciences	19.0	70.1	4.0	93.7
Mathematics	13.6	80.6	4.2	94.6
Other sciences	20.8	66.7	1.8	97.5

[1] Figures are based on only those institutions with space in a given field.

NOTE: Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 8. Quality of academic science and engineering research space, by type of institution: 1999

		Percent of total net assignable square feet (NASF)			
		Suitable for		Requiring	
Type of institution	NASF [in millions][1]	The most scientifically competitive research	Most levels of research	Major repair or renovation	Replacement
All academic institutions	142.7	40.9	33.2	19.7	6.2
Doctorate-granting institutions	136.8	41.7	33.0	19.5	5.8
Nondoctorate-granting institutions	5.9	22.4	39.6	22.2	15.8
Control					
Public	107.6	39.7	32.9	21.0	6.4
Private	35.1	44.6	34.3	15.4	5.7
Minority-serving institutions	6.6	30.5	37.3	22.5	9.7
HBCUs	3.4	14.9	43.8	29.6	11.7
Hispanic-serving institutions[2]	3.2	47.0	30.5	15.0	7.5

[1] NASF is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF in this table and the NASF amounts in other tables.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 9. Academic institutions requiring major repair/renovation or replacement of science and engineering research space, by type of institution and amount of space: 1999

Type of institution	Percent of institutions requiring: Major repair or renovation: 25 percent or more of total research space	Major repair or renovation: 10 percent or less of total research space	Replacement: 25 percent or more of total research space	Replacement: 10 percent or less of total research space
All academic institutions	32.1	37.0	7.6	80.4
Doctorate-granting institutions	26.5	38.7	3.5	83.9
Nondoctorate-granting institutions	43.0	33.8	15.7	73.3
Control				
Public	36.7	31.7	9.5	77.2
Private	25.4	44.6	4.9	84.9
Minority-serving institutions	33.7	37.0	22.9	68.9
HBCUs	41.3	32.5	22.8	69.4
Hispanic-serving institutions[1]	14.8	48.1	23.2	67.6

[1] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTE: Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 10. Academic science and engineering research space needs, by field: 1999

Field	Net assignable square feet (NASF) [in millions]		
	Available space in 1999[1]	Available space needing replacement	Additional space needed
All fields	142.7	8.9	38.1
Biological sciences			
In medical schools	11.4	0.7	4.5
Outside medical schools	18.7	1.2	5.2
Medical sciences			
In medical schools	17.7	1.2	5.8
Outside medical schools	7.1	0.4	2.5
Agricultural sciences	23.9	2.4	2.7
Engineering	24.2	1.2	5.8
Physical sciences	18.4	0.8	4.1
Earth, atmospheric, and ocean sciences	7.4	0.4	1.7
Social sciences	4.2	0.1	1.3
Psychology	3.4	0.1	1.1
Computer sciences	2.3	0.2	2.1
Mathematics	0.9	0.0	0.6
Other sciences	2.8	0.1	0.7

[1] Available space is the amount of NASF located at only those institutions which also rated the quality of their research space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 11. Institutions needing additional academic science and engineering research space, by field: 1999[1]

Field	Percent of institutions needing additional space of: Less than 10 percent of current space[2]	10 to 25 percent of current space	More than 25 percent of current space
All fields	14.7	17.4	42.7
Biological sciences			
In medical schools	1.8	2.9	8.3
Outside medical schools	5.8	10.4	32.7
Medical sciences			
In medical schools	0.9	4.1	10.3
Outside medical schools	2.1	4.0	13.5
Agricultural sciences	2.4	2.2	4.4
Engineering	5.3	5.8	18.2
Physical sciences	5.0	10.7	27.6
Earth, atmospheric, and ocean sciences	3.9	5.2	18.2
Social sciences	3.6	4.5	19.8
Psychology	2.4	6.9	25.8
Computer sciences	0.6	3.6	28.4
Mathematics	1.5	2.5	17.2
Other sciences	1.5	0.3	1.6

[1] Figures are based on only those institutions with research space in a given field.

[2] Does not include those institutions indicating that no additional space was needed.

NOTE: Amount of space needed was assessed relative to current research commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 12. Academic science and engineering research space needs, by region[1]: 1999

Region/states	Net assignable square feet [in millions]		
	Total NASF[2]	Available space needing replacement	Additional space needed
All regions	142.7	8.9	38.1
Northeast	24.9	1.8	6.8
South	46.1	2.7	14.7
Midwest	38.2	2.6	8.2
West	33.0	1.8	8.3
EPSCoR[3] states	15.6	1.3	5.3

[1] Guam and Puerto Rico are excluded from the regions but are included in other table rows where appropriate.

[2] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

[3] States eligible for the National Science Foundation's Experimental Program to Stimulate Competitive Research.

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 13. Academic science and engineering research space needs, by type of institution: 1999

Type of institution	Net assignable square feet [in millions]		
	Total NASF[1]	Available space needing replacement	Additional space needed
All academic institutions	142.7	8.9	38.1
Doctorate-granting institutions	136.8	8.0	33.1
Nondoctorate-granting institutions	5.9	0.9	5.0
Control			
Public	107.6	6.9	29.2
Private	35.1	2.0	9.0
Minority-serving institutions	6.6	0.6	4.7
HBCUs	3.4	0.4	3.6
Hispanic-serving institutions[2]	3.2	0.2	1.2

[1] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 14. Repair or renovation of academic science and engineering research space, by field: FYs 1998-2001

	Net assignable square feet [in millions]			
	Available in FY 1999		Repair or renovation	
Field	Total NASF[1]	Needing major repair or renovation	Started in FYs 1998 or 1999	Planned to start in FYs 2000 or 2001
All fields	142.7	28.1	16.4	12.5
Biological sciences				
In medical schools	11.4	2.0	2.3	2.0
Outside medical schools	18.7	4.2	2.0	1.8
Medical sciences				
In medical schools	17.7	3.8	1.6	2.3
Outside medical schools	7.1	1.4	1.1	0.8
Agricultural sciences	23.9	5.5	0.6	0.4
Engineering	24.2	4.1	2.6	1.3
Physical sciences	18.4	3.5	2.1	1.8
Earth, atmospheric, and ocean sciences	7.4	1.6	0.9	0.5
Social sciences	4.2	0.6	0.8	0.6
Psychology	3.4	0.6	0.6	0.4
Computer sciences	2.3	0.4	0.2	0.1
Mathematics	0.9	0.1	0.4	0.3
Other sciences	2.8	0.3	1.2	0.2

[1] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF in other tables.

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 15. Repair or renovation of academic science and engineering research space, by type of institution: FYs 1998-2001

Type of institution	Net assignable square feet [in millions]			
	Available in FY 1999		Repair or renovation	
	Total NASF[1]	Needing major repair or renovation	Started in FYs 1998 or 1999	Planned to start in FYs 2000 or 2001
All academic institutions	142.7	28.1	16.4	12.5
Doctorate-granting institutions	136.8	26.8	15.6	11.6
Nondoctorate-granting institutions	5.9	1.3	0.8	0.9
Control				
Public	107.6	22.6	10.9	8.8
Private	35.1	5.4	5.5	3.7
Minority-serving institutions	6.6	1.5	0.8	0.6
HBCUs	3.4	1.0	0.3	0.2
Hispanic-serving institutions[2]	3.2	0.5	0.4	0.4

[1] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF in other tables.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 16. New construction of academic science and engineering research space, by field: FYs 1998-2001

Field	Net assignable square feet [in millions]			
	Available in FY 1999		New construction	
	Total NASF[1]	Needing replacement	Started in FYs 1998 or 1999	Planned to start in FYs 2000 or 2001
All fields	142.7	8.9	8.8	16.1
Biological sciences				
In medical schools	11.4	0.7	1.0	2.8
Outside medical schools	18.7	1.2	1.0	2.2
Medical sciences				
In medical schools	17.7	1.2	1.3	2.6
Outside medical schools	7.1	0.4	0.8	1.6
Agricultural sciences	23.9	2.4	0.8	1.0
Engineering	24.2	1.2	1.5	2.5
Physical sciences	18.4	0.8	1.1	1.1
Earth, atmospheric, and ocean sciences	7.4	0.4	0.3	0.6
Social sciences	4.2	0.1	0.1	0.2
Psychology	3.4	0.1	0.1	0.4
Computer sciences	2.3	0.2	0.3	0.5
Mathematics	0.9	0.0	0.0	0.0
Other sciences	2.8	0.1	0.5	0.6

[1] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 17. New construction of academic science and engineering research space, by type of institution: FYs 1998-2001

Type of institution	Net assignable square feet [in millions]: Available in FY 1999: Total NASF[1]	Available in FY 1999: Needing replacement	New construction: Started in FYs 1998 or 1999	New construction: Planned to start in FYs 2000 or 2001
All academic institutions	142.7	8.9	8.8	16.1
Doctorate-granting institutions	136.8	8.0	8.0	15.1
Nondoctorate-granting institutions	5.9	0.9	0.8	1.0
Control				
Public	107.6	6.9	6.4	10.9
Private	35.1	2.0	2.4	5.1
Minority-serving institutions	6.6	0.6	0.5	1.1
HBCUs	3.4	0.4	0.3	0.7
Hispanic-serving institutions[2]	3.2	0.2	0.3	0.4

[1] Net assignable square feet (NASF) is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF and the NASF amounts in other tables.

[2] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 18. Cost to repair or renovate academic science and engineering research space, by field: 1998-2001

Field	Cost of repair and renovation [in millions of current dollars]			
	Started in FYs 1998 or 1999	Planned		Deferred and not included in institutional plan
		To start in FYs 2000 or 2001	To start after FY 2001	
All fields	1,693	2,000	3,330	1,501
Biological sciences				
In medical schools	233	337	151	221
Outside medical schools	256	260	469	212
Medical sciences				
In medical schools	241	600	380	145
Outside medical schools	109	107	117	72
Agricultural sciences	23	27	206	99
Engineering	301	107	609	212
Physical sciences	216	328	689	278
Earth, atmospheric, and ocean sciences	82	42	140	105
Social sciences	101	64	181	55
Psychology	30	49	111	35
Computer sciences	19	22	26	34
Mathematics	17	30	55	17
Other sciences	64	26	195	14

NOTES: Components may not add to totals due to rounding.

A deferred project refers to a repair/renovation or new construction project that: is necessary to meet your current S&E research program commitments; is not scheduled for your FYs 2000 or 2001; does not have funding; and is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments. Includes only projects over $100,000.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 19. Cost of new construction of academic science and engineering research space, by field: 1998-2001

Field	Cost of new construction [in millions of current dollars]			
	Started in FYs 1998 or 1999	Planned		Deferred and not included in institutional plan
		To start in FYs 2000 or 2001	To start after FY 2001	
All fields	2,882	7,447	7,304	1,474
Biological sciences				
In medical schools	294	1,503	470	127
Outside medical schools	389	1,027	1,424	158
Medical sciences				
In medical schools	511	1,256	1,364	261
Outside medical schools	337	1,215	726	156
Agricultural sciences	156	233	517	125
Engineering	354	771	798	159
Physical sciences	419	549	635	105
Earth, atmospheric, and ocean sciences	116	201	285	117
Social sciences	46	71	108	137
Psychology	50	169	27	24
Computer sciences	69	169	361	73
Mathematics	11	13	78	8
Other sciences	130	270	511	25

NOTES: Components may not add to totals due to rounding.

All projects are greater than $100,000, except for those projects deferred and not in institutional plan.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 20. Cost to repair or renovate academic science and engineering space, by type of institution: 1998-2001

Type of institution	Cost of repairs and renovation [in millions of current dollars]			
		Planned		Deferred and not included in institutional plan
	Started in FYs 1998 or 1999	To start in FYs 2000 or 2001	To start after FY 2001	
All academic institutions	1,693	2,000	3,330	1,501
Doctorate-granting institutions	1,599	1,879	3,089	1,460
Nondoctorate-granting institutions	94	121	241	40
Control				
Public	962	912	2,947	962
Private	732	1,088	383	538
Minority-serving institutions	53	47	51	7
HBCUs	33	14	41	5
Hispanic-serving institutions[1]	20	33	9	1

[1] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
All projects are greater than $100,000, except for those projects deferred and not in institutional plan.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 21. Cost of new construction of academic science and engineering space, by type of institution: 1998-2001

	Cost of new construction [in millions of current dollars]			
		Planned		Deferred and not included in institutional plan
Type of institution	Started in FYs 1998 or 1999	To start in FYs 2000 or 2001	To start after FY 2001	
All academic institutions	2,882	7,447	7,304	1,474
Doctorate-granting institutions	2,696	7,097	6,880	1,395
Nondoctorate-granting institutions	186	349	424	78
Control				
Public	1,901	4,745	5,714	1,330
Private	981	2,701	1,590	144
Minority-serving institutions	96	202	402	88
HBCUs	54	119	204	61
Hispanic-serving institutions[1]	43	83	198	27

[1] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
All projects are greater than $100,000, except for those projects deferred and not in institutional plan.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 22. Source of funds for repair and renovation of academic science and engineering research space, by type of institution: 1998-99

Type of institution	Total funding [in millions of dollars][1]	Percent of total funding						
		Government		Private donations	Institutional funds[2]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
All academic institutions	1,686	3.9	26.3	12.1	38.3	14.2	4.4	0.8
Doctorate-granting institutions	1,599	3.6	26.1	10.5	39.4	15.0	4.6	0.7
Nondoctorate-granting institutions	87	8.6	30.4	41.3	17.5	0.0	0.0	2.2
Control								
Public	972	5.2	45.3	6.9	37.1	5.2	0.0	0.3
Private	714	2.1	0.6	19.1	39.9	26.5	10.3	1.6
Minority-serving institutions	42	22.5	59.0	6.2	12.3	0.0	0.0	0.0
HBCUs	22	30.1	50.7	11.8	7.9	0.0	0.0	0.0
Hispanic-serving institutions[3]	20	14.1	68.7	0.0	17.2	0.0	0.0	0.0

[1] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for the period 1998-99. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

[2] Institutional funds include an institution's operating funds, endowment, and indirect costs recovered from grants and contracts.

[3] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 23. Source of funds for new construction of academic science and engineering research space, by type of institution: 1998-99

Type of institution	Total funding [in millions of dollars][1]	Percent of total funding						
		Government		Private donations	Institutional funds[2]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
All academic institutions	2,546	7.8	32.0	15.3	21.9	19.3	2.4	1.2
Doctorate-granting institutions	2,348	7.5	32.1	14.9	23.3	18.3	2.6	1.3
Nondoctorate-granting institutions	197	11.3	30.4	20.4	5.9	32.0	0.0	0.0
Control								
Public	1,536	11.2	42.7	11.2	16.3	14.5	2.1	2.0
Private	1,009	2.7	15.7	21.6	30.5	26.8	2.8	0.1
Minority-serving institutions	110	35.7	40.1	15.5	6.4	2.3	0.0	0.0
HBCUs	70	32.6	42.1	24.3	0.8	0.0	0.1	0.0
Hispanic-serving institutions[3]	40	41.0	36.5	0.0	16.2	6.3	0.0	0.0

[1] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for the period 1998-99. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

[2] Institutional funds include an institution's operating funds, endowment, and indirect costs recovered from Federal grants and contracts.

[3] Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

KEY: HBCUs = Historically Black Colleges and Universities

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 24. Trends in sources of funding for the construction of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
1986 or 1987								
Total	2,050.6	145.4	779.1	487.5	289.8	313.1	3.1	31.9
Doctorate-granting	1,887.7	129.9	690.4	462.5	289.2	280.1	3.1	31.9
Nondoctorate-granting	162.9	15.5	88.7	25.1	0.6	33.1	0.0	0.0
1988 or 1989								
Total	2,464.5	352.0	890.7	459.2	343.8	320.2	95.9	0.8
Doctorate-granting	2,315.0	339.0	807.3	411.7	338.3	320.2	95.9	0.8
Nondoctorate-granting	149.5	13.0	83.4	47.5	5.6	0.0	0.0	0.0
1990 or 1991								
Total	2,975.6	476.3	956.6	352.6	394.1	727.5	35.4	33.1
Doctorate-granting	2,847.3	465.5	947.9	348.0	390.3	627.0	35.4	33.1
Nondoctorate-granting	128.4	10.8	8.7	4.6	3.8	100.5	0.0	0.0
1992 or 1993								
Total	2,810.8	459.3	968.0	301.0	374.3	620.3	39.0	50.0
Doctorate-granting	2,720.0	452.0	893.0	297.0	374.0	616.0	39.0	48.0
Nondoctorate-granting	91.8	7.3	75.0	4.0	0.3	4.3	0.0	2.0
1994 or 1995								
Total	2,767.6	206.5	1,180.8	360.0	442.0	426.1	145.7	6.5
Doctorate-granting	2,436.9	201.2	890.4	344.0	437.5	411.6	145.7	6.5
Nondoctorate-granting	330.6	5.2	290.5	16.0	4.4	14.5	0.0	0.0
1996 or 1997								
Total	3,110.3	270.9	966.6	596.6	593.1	553.0	106.6	23.5
Doctorate-granting	2,843.2	268.3	880.6	517.8	592.9	488.1	73.2	22.3
Nondoctorate-granting	267.1	2.5	86.0	78.8	0.2	65.0	33.4	1.2
1998 or 1999[2]								
Total	2,545.5	198.6	814.5	390.2	558.2	492.2	60.7	31.2
Doctorate-granting	2,348.2	176.3	754.4	349.9	546.6	429.1	60.6	31.2
Nondoctorate-granting	197.3	22.3	60.0	40.3	11.6	63.1	0.0	0.0

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 25. Trends in sources of funding at public institutions for the construction of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
1986 or 1987								
Total	1,354.8	40.3	754.5	259.1	109.2	189.5	2.4	0.2
Doctorate-granting	1,220.4	31.4	665.9	238.6	109.2	173.1	2.4	0.2
Nondoctorate-granting	134.4	8.9	88.5	20.6	0.0	16.4	0.0	0.0
1988 or 1989								
Total	1,727.0	274.3	838.4	192.9	256.3	154.5	8.1	0.6
Doctorate-granting	1,625.6	268.3	755.0	184.8	252.4	154.6	8.1	0.6
Nondoctorate-granting	101.4	6.0	83.4	8.1	3.9	0.0	0.0	0.0
1990 or 1991								
Total	2,020.0	388.1	809.4	139.1	270.2	398.6	7.8	6.9
Doctorate-granting	1,906.4	382.3	800.7	139.1	270.2	299.4	7.8	6.9
Nondoctorate-granting	113.7	5.8	8.7	0.0	0.0	99.2	0.0	0.0
1992 or 1993								
Total	2,016.4	325.8	929.8	152.5	198.3	390.5	16.2	3.3
Doctorate-granting	1,929.9	320.1	854.4	152.5	198.1	386.9	16.2	1.7
Nondoctorate-granting	86.4	5.7	75.4	0.0	0.2	3.6	0.0	1.6
1994 or 1995								
Total	1,872.3	115.4	1,164.6	123.9	142.4	306.1	13.5	6.5
Doctorate-granting	1,578.1	112.5	874.0	123.9	141.6	306.1	13.5	6.5
Nondoctorate-granting	294.2	3.0	290.5	0.0	0.8	0.0	0.0	0.0
1996 or 1997								
Total	1,988.7	201.0	940.2	267.3	249.3	259.7	54.4	16.9
Doctorate-granting	1,812.7	198.4	863.2	262.0	249.3	203.1	21.0	15.7
Nondoctorate-granting	176.0	2.5	77.0	5.3	0.0	56.6	33.4	1.2
1998 or 1999[2]								
Total	1,536.1	171.7	656.5	172.4	250.8	222.0	32.7	30.0
Doctorate-granting	1,400.3	151.0	596.5	170.2	239.3	180.6	32.7	30.0
Nondoctorate-granting	135.8	20.7	59.9	2.2	11.6	41.4	0.0	0.0

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 26. Trends in sources of funding at private institutions for the construction of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
1986 or 1987								
Total	695.8	105.1	24.6	228.4	180.6	123.6	0.7	31.7
Doctorate-granting	667.3	98.5	24.5	223.9	180.0	107.0	0.7	31.7
Nondoctorate-granting	28.5	6.6	0.2	4.5	0.6	16.7	0.0	0.0
1988 or 1989								
Total	737.5	77.7	52.3	266.3	87.5	165.7	87.8	0.2
Doctorate-granting	689.4	70.7	52.3	226.9	85.9	165.6	87.8	0.2
Nondoctorate-granting	48.1	7.0	0.0	39.4	1.7	0.0	0.0	0.0
1990 or 1991								
Total	955.6	88.2	147.2	213.5	123.9	328.9	27.6	26.2
Doctorate-granting	940.9	83.2	147.2	208.9	120.1	327.6	27.6	26.2
Nondoctorate-granting	14.7	5.0	0.0	4.6	3.8	1.3	0.0	0.0
1992 or 1993								
Total	795.5	133.5	38.8	148.5	176.1	229.6	22.7	46.4
Doctorate-granting	789.7	132.2	38.8	144.6	175.8	229.3	22.7	46.4
Nondoctorate-granting	5.8	1.3	0.0	3.9	0.3	0.3	0.0	0.0
1994 or 1995								
Total	895.2	91.0	16.3	236.1	299.5	120.0	132.2	0.0
Doctorate-granting	858.8	88.8	16.3	220.1	295.9	105.5	132.2	0.0
Nondoctorate-granting	36.3	2.2	0.0	16.0	3.6	14.5	0.0	0.0
1996 or 1997								
Total	1,121.6	69.9	26.4	329.4	343.8	293.4	52.2	6.6
Doctorate-granting	1,030.5	69.9	17.4	255.9	343.6	285.0	52.2	6.6
Nondoctorate-granting	91.1	0.0	9.0	73.5	0.2	8.4	0.0	0.0
1998 or 1999[2]								
Total	1,009.4	27.0	158.0	217.8	307.4	270.2	27.9	1.1
Doctorate-granting	893.4	24.5	154.4	151.6	305.0	227.2	27.5	1.1
Nondoctorate-granting	116.0	2.5	3.6	66.2	2.4	43.0	0.4	0.0

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 27. Trends in sources of funding for the repair/renovation of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
1986 or 1987								
Total	837.9	27.3	233.1	101.0	328.0	137.6	3.8	7.4
Doctorate-granting	792.7	23.5	201.7	99.3	325.2	132.2	3.8	7.4
Nondoctorate-granting	45.2	3.7	31.4	1.6	3.0	5.4	0.0	0.0
1988 or 1989								
Total	1,009.5	61.1	233.8	52.1	570.8	69.9	15.9	5.2
Doctorate-granting	979.2	55.9	226.6	42.1	563.6	69.8	15.9	5.2
Nondoctorate-granting	30.3	5.1	7.1	10.0	7.2	0.0	0.0	0.0
1990 or 1991								
Total	825.7	49.0	243.0	100.6	355.4	66.4	8.0	3.2
Doctorate-granting	794.1	48.3	227.3	97.5	346.7	63.2	8.0	3.2
Nondoctorate-granting	31.6	0.7	15.8	3.2	8.7	3.3	0.0	0.0
1992 or 1993								
Total	835.4	56.2	252.4	73.0	332.0	81.0	27.0	16.2
Doctorate-granting	803.0	47.0	244.0	66.0	325.0	79.0	27.0	16.2
Nondoctorate-granting	32.4	9.2	8.4	7.0	7.0	2.0	0.0	0.0
1994 or 1995								
Total	1,058.1	110.7	265.5	110.7	432.7	50.4	78.6	9.3
Doctorate-granting	981.3	101.9	233.0	93.7	423.2	43.8	76.3	9.3
Nondoctorate-granting	76.8	8.8	32.6	17.0	9.5	6.6	2.4	0.0
1996 or 1997								
Total	1,324.5	120.8	338.1	140.6	578.6	84.6	35.7	26.1
Doctorate-granting	1,142.2	96.1	273.2	86.8	568.0	56.3	35.7	26.1
Nondoctorate-granting	182.3	24.7	64.9	53.8	10.6	28.3	0.0	0.0
1998 or 1999[2]								
Total	1,685.9	65.6	444.0	203.6	645.2	240.0	73.7	13.8
Doctorate-granting	1,598.9	58.2	417.5	167.6	630.0	240.0	73.7	11.9
Nondoctorate-granting	87.0	7.4	26.5	36.0	15.2	0.0	0.0	1.9

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 28. Trends in sources of funding at public institutions for the repair/renovation of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/local					
1986 or 1987								
Total	435.9	13.2	226.6	15.0	155.1	25.5	0.3	0.2
Doctorate-granting	399.3	10.9	195.1	14.3	153.4	25.0	0.3	0.2
Nondoctorate-granting	36.5	2.2	31.4	0.6	1.8	0.5	0.0	0.0
1988 or 1989								
Total	698.5	31.4	229.3	22.0	403.5	6.6	4.9	0.0
Doctorate-granting	673.9	26.5	222.1	13.9	399.8	6.5	4.9	0.0
Nondoctorate-granting	24.6	4.9	7.1	8.1	3.6	0.0	0.0	0.0
1990 or 1991								
Total	449.3	24.6	233.5	43.8	134.6	12.1	0.0	0.6
Doctorate-granting	431.3	23.9	217.8	43.8	133.1	12.1	0.0	0.6
Nondoctorate-granting	18.0	0.7	15.8	0.0	1.5	0.0	0.0	0.0
1992 or 1993								
Total	520.4	34.3	237.1	24.9	154.4	55.9	1.6	11.9
Doctorate-granting	507.9	31.1	228.5	24.9	153.8	55.9	1.6	11.9
Nondoctorate-granting	12.4	3.2	8.6	0.0	0.6	0.0	0.0	0.0
1994 or 1995								
Total	495.8	38.9	254.4	16.0	160.8	18.3	0.9	6.5
Doctorate-granting	449.9	31.8	222.3	15.7	154.4	18.3	0.9	6.5
Nondoctorate-granting	45.9	7.1	32.1	0.2	6.5	0.0	0.0	0.0
1996 or 1997								
Total	669.6	72.4	328.3	38.3	179.6	25.1	0.3	25.7
Doctorate-granting	580.5	58.2	263.4	36.8	175.6	20.6	0.3	25.7
Nondoctorate-granting	89.1	14.2	64.9	1.5	4.0	4.6	0.0	0.0
1998 or 1999[2]								
Total	971.7	50.5	440.1	67.4	360.5	50.7	0.1	2.5
Doctorate-granting	936.5	45.5	415.2	66.9	355.6	50.7	0.1	2.5
Nondoctorate-granting	35.2	4.9	24.8	0.5	4.9	0.0	0.0	0.0

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 29. Trends in sources of funding at private institutions for the repair/renovation of academic science and engineering research facilities, by type of institution: 1986-99

[current dollars in millions]

Year of project start and type of institution	All sources	Governments		Private donations	Institutional funds[1]	Tax-exempt bonds	Other debt	Other sources
		Federal	State/Local					
1986 or 1987								
Total	402.0	14.1	6.5	86.0	172.9	112.1	3.5	7.2
Doctorate-granting	393.4	12.6	6.6	85.0	171.8	107.2	3.5	7.2
Nondoctorate-granting	8.6	1.5	0.0	1.0	1.2	4.9	0.0	0.0
1988 or 1989								
Total	311.0	29.7	4.5	30.1	167.3	63.3	11.0	5.2
Doctorate-granting	305.3	29.4	4.5	28.2	163.8	63.3	11.0	5.2
Nondoctorate-granting	5.7	0.2	0.0	1.9	3.6	0.0	0.0	0.0
1990 or 1991								
Total	376.4	24.4	9.5	56.8	220.8	54.3	8.0	2.6
Doctorate-granting	362.8	24.4	9.5	53.7	213.6	51.1	8.0	2.6
Nondoctorate-granting	13.6	0.0	0.0	3.2	7.2	3.3	0.0	0.0
1992 or 1993								
Total	314.6	21.8	15.0	47.5	176.3	24.5	25.2	4.3
Doctorate-granting	294.7	16.0	15.0	40.7	170.5	22.9	25.2	4.2
Nondoctorate-granting	19.9	5.8	0.0	6.8	5.8	1.6	0.0	0.1
1994 or 1995								
Total	562.3	71.8	11.2	94.8	271.9	32.2	77.7	2.8
Doctorate-granting	531.4	70.1	10.7	78.0	268.8	25.6	75.4	2.8
Nondoctorate-granting	30.8	1.6	0.5	16.8	3.0	6.6	2.4	0.0
1996 or 1997								
Total	654.9	48.4	9.8	102.4	399.0	59.5	35.4	0.4
Doctorate-granting	561.7	37.9	9.8	50.1	392.4	35.7	35.4	0.4
Nondoctorate-granting	93.2	10.5	0.0	52.3	6.6	23.7	0.0	0.0
1998 or 1999[2]								
Total	714.2	15.1	4.0	136.2	284.8	189.2	73.6	11.3
Doctorate-granting	662.4	12.6	2.3	100.8	274.4	189.2	73.6	9.4
Nondoctorate-granting	51.8	2.5	1.6	35.4	10.4	0.0	0.0	1.9

[1] Funding for research activities from the institution's operating funds, endowments, indirect costs recovered from Federal grants and/or contracts, indirect costs recovered from other sources, etc.

[2] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for 1998 or 1999. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 30. Academic institutions with deferred capital projects to construct or repair/renovate academic science and engineering research facilities, by type of institution, project type and whether the project was included in institutional plans: 1999

Type of institution	Percent of institutions with deferred capital projects					
	Included in institutional plans			Not included in institutional plans		
	To construct or repair/renovate S&E research facilities	To construct new S&E research facilities	To repair/ renovate existing S&E research facilities	To construct or repair/renovate S&E research facilities	To construct new S&E research facilities	To repair/ renovate existing S&E research facilities
Total	44	27	35	25	13	20
Doctorate-granting	50	32	42	29	17	23
Top 100 in R&D expenditures[1]	65	52	58	38	17	33
Other	44	25	35	26	16	20
Nondoctorate-granting	31	17	23	18	5	15
Public	51	34	42	27	16	21
Doctorate-granting	60	42	52	33	22	26
Nondoctorate-granting	34	19	25	15	5	12
Private	33	17	25	23	8	20
Doctorate-granting	36	19	27	24	8	20
Nondoctorate-granting	26	14	21	21	7	19

[1] Expenditures are for Fiscal Year 1997.

KEY: S&E = science and engineering

NOTE: A deferred project refers to a repair/renovation or new construction project that: is necessary to meet your current S&E research program commitments; is not scheduled for your FYs 2000 or 2001; does not have funding; and is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 31. Estimated cost of deferred capital projects to construct or repair/renovate academic science and engineering research facilities, by type of institution, project type and whether the project was included in institutional plans: 1999[1]

[current dollars in millions]

Type of institution	Total	Deferred capital projects			
		Included in institutional plans		Not included in institutional plans	
		To construct new S&E research facilities	To repair/ renovate existing S&E research facilities	To construct new S&E research facilities	To repair/ renovate existing S&E research facilities
Total	16,070	8,004	4,098	1,855	2,113
Doctorate-granting	15,012	7,548	3,782	1,776	1,906
Top 100 in research expenditures	10,526	5,300	2,952	990	1,284
Other	4,486	2,248	830	786	622
Nondoctorate-granting	1,058	456	316	78	208
Public	13,217	6,376	3,661	1,695	1,486
Doctorate-granting	12,488	6,055	3,459	1,655	1,319
Nondoctorate-granting	729	321	203	40	166
Private	2,853	1,628	436	160	628
Doctorate-granting	2,524	1,493	323	122	586
Nondoctorate-granting	328	135	113	38	41

[1] Figures include costs for central campus infrastructure.

KEY: S&E = science and engineering

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 32. Number of academic institutions with deferred capital projects to construct or repair/renovate science and engineering research facilities, by field, project type and whether the project was included in institutional plans: 1999

Field	Total	Institutions with deferred capital projects			
		Included in institutional plans		Not in institutional plans	
		To construct new S&E research facilities	To repair/ renovatexisting S&E research facilities	To construct new S&E research facilities	To repair/ renovate existing S&E research facilities
Physical sciences	184	48	103	13	50
Psychology	80	7	45	9	26
Social sciences	77	15	36	12	27
Mathematics	75	12	34	7	25
Computer sciences	84	23	32	14	23
Earth, atmospheric, and ocean sciences	90	25	42	12	24
Engineering	127	48	65	15	34
Agricultural sciences	57	24	31	5	14
Medical sciences					
In medical schools	60	24	31	7	16
Outside medical schools	76	27	33	11	16
Biological sciences					
In medical schools	57	15	27	7	18
Outside medical schools	177	65	90	12	46
Other sciences	48	21	19	7	13

KEY: S&E = science and engineering

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 33. Costs of deferred capital projects to construct or repair/renovate academic science and engineering research facilities, by field, project type and whether the project was included in institutional plans: 1999

[current dollars in millions]

Field	Deferred capital projects				
	Total	Included in institutional plans		Not included in institutional plans	
		To construct new S&E research facilities	To repair/ renovate existing S&E research facilities	To construct new S&E research facilities	To repair/ renovate existing S&E research facilities
Total[1]	13,608	7,304	3,330	1,474	1,501
Physical sciences	1,708	635	689	105	278
Psychology	196	27	111	24	35
Social sciences	482	108	181	137	55
Mathematics	158	78	55	8	17
Computer sciences	495	361	26	73	34
Earth, atmospheric, and ocean sciences	647	285	140	117	105
Engineering	1,777	798	609	159	212
Agricultural sciences	947	517	206	125	99
Medical sciences					
In medical schools	2,151	1,364	380	261	145
Outside medical schools	1,071	726	117	156	72
Biological sciences					
In medical schools	969	470	151	127	221
Outside medical schools	2,263	1,424	469	158	212
Other sciences	744	511	195	25	14

[1] Figures exclude costs for central campus infrastructure.

KEY: S&E = science and engineering

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 34. Total number of Historically Black Colleges and Universities (HBCU), by type and control: 1999

Type of institution and control	Original 29 HBCUs [1]	Expanded HBCUs [2]
Number of research-performing HBCUs	29	64
Public	24	40
Doctorate-granting	6	6
Nondoctorate-granting	18	34
Private	5	24
Doctorate-granting	3	6
Nondoctorate-granting	2	19

[1] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[2] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

KEY: HBCUs = Historically Black Colleges and Universities

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 35. Amount of instructional and research space in Historically Black Colleges and Universities, by type of space: 1999

[NASF in millions]

Type of space	Original 29 HBCUs [1]	Expanded HBCUs [2]
Total instructional and research space -- all fields	11.5	18.1
S&E instructional and research space	7.8	11.1
S&E research space	2.8	3.6
Number of research performing HBCUs	29	64

[1] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[2] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet
S&E = science and engineering

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 36. Total amount of science and engineering instructional and research space in the 29 original[1] Historically Black Colleges and Universities, by field: 1988-99[2]

[NASF in thousands]

Field	Total instructional and research NASF							Total research NASF						
	1988	1990	1992	1994	1996	1998	1999	1988	1990	1992	1994	1996	1998	1999
Total	6,077	6,175	6,576	6,084	6,755	6,818	7,759	1,112	1,440	1,782	1,759	1,797	1,885	2,841
Physical sciences	804	810	1,005	876	939	841	846	179	190	235	212	229	234	256
Psychology	119	105	86	106	134	114	126	14	19	16	18	16	16	19
Social sciences	304	322	278	233	268	257	205	28	47	57	43	56	46	35
Mathematics	173	164	191	158	194	204	211	12	26	29	19	24	20	22
Computer sciences	150	114	160	128	140	159	164	43	30	42	31	36	40	26
Earth, atmospheric, and ocean sciences	44	56	85	73	115	121	129	10	26	35	27	42	43	41
Engineering	777	979	1,207	1,136	1,354	1,385	2,429	152	167	285	315	349	363	1,440
Agricultural sciences	604	834	783	704	718	706	757	259	433	414	470	451	471	447
Medical sciences														
In medical schools	1,253	810	810	649	872	903	893	141	158	160	69	84	87	110
Outside medical schools	593	956	963	913	719	726	706	37	50	133	134	63	82	74
Biological sciences														
In medical schools	621	388	388	456	470	513	448	91	121	121	159	150	181	151
Outside medical schools	509	546	621	581	634	663	629	141	170	254	250	208	216	178
Other sciences	126	91	0	70	198	146	216	4	4	0	12	88	86	42

[1] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[2] In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1998 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year of the current amount of space.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 37. Total amount of science and engineering instructional and research space in expanded group[1] of Historically Black Colleges and Universities, by field: 1992-99[2]

[NASF in thousands]

Field	Total instructional and research NASF					Total research NASF				
	1992	1994	1996	1998	1999	1992	1994	1996	1998	1999
Total	9,095	7,923	8,984	8,734	11,081	2,920	2,197	2,374	2,339	3,600
Physical sciences	1,380	1,344	1,482	1,212	1,264	275	280	352	321	337
Psychology	173	222	219	214	236	25	33	31	31	33
Social sciences	438	367	413	415	429	78	61	77	56	47
Mathematics	325	365	345	338	378	34	38	44	31	40
Computer sciences	283	278	356	383	1,090	53	52	64	65	195
Earth, atmospheric, and ocean sciences	131	97	219	214	213	64	36	54	57	51
Engineering	1,353	1,278	1,445	1,499	2,879	302	355	364	388	1,608
Agricultural sciences	930	705	979	1,081	1,232	497	483	595	635	630
Medical sciences										
In medical schools	862	649	872	903	908	187	69	84	87	110
Outside medical schools	1,070	989	799	805	773	147	141	77	95	88
Biological sciences										
In medical schools	388	456	470	513	448	121	159	150	181	151
Outside medical schools	1,757	1,063	1,182	1,005	987	1,137	480	393	305	264
Other sciences	5	109	202	151	244	0	14	88	86	47
Number of research-performing HBCUs	70	70	68	57	64	70	70	68	57	64

[1] The expanded group consists of all research-performing HBCUs.

[2] In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1993 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year of the current amount of space.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet

NOTE Components may not add to totals due to rounding.

SOURCE National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 38. Trends in the condition of science and engineering research facilities at Historically Black Colleges and Universities: 1988-99[1]

[percentage of research space]

Condition of research facilities	Original 29 HBCUs[2]							Expanded HBCUs[3]				
	1988	1990	1992	1994	1996[4]	1998[4]	1999[5]	1992	1994	1996[4]	1998[4]	1999[5]
Total	100	100	100	100	100	100	100	100	100	100	100	100
Suitable for most highly developed and scientifically sophisticated research	36	31	34	31	32	36	14	22	24	31	35	15
Effective for most uses, but not most scientifically sophisticated research	39	45	41	39	--	--	44	56	35	--	--	44
Effective for most levels of research in the field, but may need limited repair/renovation	18	18	17	21	56	47	33	14	25	55	48	30
Requires major repair/renovation or replacement to be used effectively	7	7	8	9	13	17	8	8	16	14	16	12

[1] In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1998 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year the majority of the data represents.

[2] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[3] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

[4] 1996 and 1998 survey response categories changed to: suitable for the most scientifically competitive research; effective for most levels of research in the field, but may need limited repair/renovation; and requires major renovation or replacement to be used effectively.

[5] 1999 survey response categories changed to: suitable for the most scientifically competitive research; effective for most levels of research in the field, but may need limited repair/renovation; requires major renovation to be used effectively, and requires replacement.

KEY: HBCUs = Historically Black Colleges and Universities
-- = included in other reported categories

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 39. Trends in science and engineering research facilities construction and repair/renovation at Historically Black Colleges and Universities, by project characteristics: 1986-99[1]

Project characteristics	Original 29 HBCUs[2]								Expanded HBCUs[3]					
	1986	1988	1990	1992	1994	1996	1998	1999	1990	1992	1994	1996	1998	1999
New construction[4]														
Total estimated completion cost [current dollars in millions]	72	55	23	9	3	64	35	29	38	29	21	66	64	41
Amount of space [NASF in thousands]	481	319	328	88	68	335	165	129	449	226	166	347	252	149
Number of HBCUs with projects	11	10	6	4	4	10	6	3	10	9	13	14	10	6
Repair/renovation[4]														
Total estimated completion cost [current dollars in millions]	14	17	12	9	22	8	16	15	21	9	22	13	18	20
Amount of space [NASF in thousands]	137	308	129	106	343	114	262	158	177	110	347	150	280	194
Number of HBCUs with projects	13	10	5	11	7	5	9	6	8	12	9	15	13	11
Repair/renovation projects costing $5,000-$100,000														
Total estimated completion cost [current dollars in millions]	--	--	1	3	1	1	--	--	1	26	2	2	--	--
Number of HBCUs with projects	--	--	10	13	11	13	--	--	21	38	24	22	--	--

[1] In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1998 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year of the majority of the data.

[2] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[3] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

[4] Findings are limited to projects with estimated total cost at completion of $100,000 or more for research space.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet
-- = data were not collected

NOTE: Net assignable square feet is the sum of all areas on all floors of a building assigned to, or available to be assigned to, an occupant for specific use.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 40. Trends in sources of funds for science and engineering research facilities construction at Historically Black Colleges and Universities: 1986-98

[current dollars in millions]

Source of funds	1986[1]	1988[1]	1990		1992		1994		1996		1998[4]	
			Original[2]	Expanded[3]	Original[2]	Expanded[3]	Original[2]	Expanded[3]	Original[2]	Expanded[3]	Original[2]	Expanded[3]
Total	71.8	55.1	22.5	37.6	8.6	28.8	3.3	21.3	64.3	66.2	59.7	70.0
Federal Government	32.7	35.0	12.1	13.0	6.5	4.6	1.3	3.3	4.6	4.8	16.3	22.9
State/local government	25.8	11.5	6.3	18.0	2.0	22.4	2.0	16.8	50.5	50.5	27.2	29.5
Private donations	11.1	7.7	0.0	0.0	0.0	0.0	0.0	0.3	3.0	3.4	15.5	17.0
Institutional funds	2.3	0.9	4.2	4.6	0.0	0.2	0.0	0.9	1.5	1.5	0.6	0.6
Tax-exempt bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6	0.0	0.0
Other debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other sources	0.0	0.0	0.0	1.9	0.0	1.6	0.0	0.0	1.0	2.2	0.0	0.0
Number of research-performing HBCUs	29	29	29	70	28	68	29	68	29	57	29	64

[1] Data for the first two time periods were heavily inflated by construction activity at a single institution, which accounted for a substantial fraction of the total dollar amount shown.

[2] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[3] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

[4] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for the period 1998-99. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.
Projects were started during two-year periods. The years in the table reflect the first year of these two-year periods.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 41. Trends in sources of funding for science and engineering research facilities repair/renovation at Historically Black Colleges and Universities: 1986-98

[current dollars in millions]

Source of funds	1986	1988	1990		1992		1994		1996		1998[3]	
			Original[1]	Expanded[2]	Original[1]	Expanded[2]	Original[1]	Expanded[2]	Original[1]	Expanded[2]	Original[1]	Expanded[2]
Total	14.1	21.1	11.6	21.4	8.7	9.1	21.5	22.0	7.6	13.2	41.6	19.7
Federal Government	8.7	12.9	3.5	3.6	5.0	4.8	10.2	10.4	2.2	4.5	9.3	2.8
State/local government	4.9	8.0	8.0	17.7	2.1	2.1	6.4	6.6	1.8	2.5	24.5	13.6
Private donations	0.5	0.1	0.1	0.2	1.7	1.7	0.0	0.0	0.0	0.2	2.6	0.0
Institutional funds	0.0	0.1	0.1	0.1	0.1	0.4	2.6	2.6	3.6	6.0	5.1	3.4
Tax-exempt bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other debt	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	0.0
Other sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of research-performing HBCUs	29	29	29	70	28	68	29	68	29	57	29	64

[1] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[2] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

[3] Several institutions provided inconsistent information about the costs of new construction and repair/renovation and the source of these funds for the period 1998-99. Consequently, the table data for sources of funding may not be consistent with table data on construction and repair/renovation costs.

KEY: HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding. Findings are limited to projects with estimated total cost at Projects were started during two-year periods. completion of $100,000 or more for research space. The years in the table reflect the first year of these two-year periods.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 42. Laboratory animal research facilities at Historically Black Colleges and Universities: 1999

Indicator	Original 29 HBCUs[1]	Expanded HBCUs[2]
Total animal research space [NASF in thousands]	165.6	183.5
Animal laboratory space [NASF in thousands]	67.2	75.8
Animal housing space [NASF in thousands]	98.4	107.7
Cost of scheduled construction and repair/renovation of laboratory animal facilities, 1998 or 1999 [current dollars in millions]	14.6	14.6
Amount of space scheduled for construction and repair/renovation of laboratory animal facilities, 1998 or 1999 [NASF in thousands]	10.5	10.5

[1] The original group consists of the same 29 HBCUs surveyed from 1988 through 1999.

[2] The expanded group consists of all research-performing HBCUs, including the 29 original HBCUs.

KEY: HBCUs = Historically Black Colleges and Universities
NASF = net assignable square feet

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 43. Geographic distribution of biomedical research space, by field and type of institution: 1999[1]

Field and type of institution	Net assignable square feet [in millions]					
	All states	Northeast	Midwest	South	West	IDeA program states[2]
Biological sciences	43.7	10.2	8.8	12.8	11.6	4.2
Academic institutions	32.2	6.7	8.3	10.0	6.9	3.3
In medical schools[3]	12.7	3.0	3.2	4.7	1.6	1.2
Outside medical schools	19.5	3.7	5.1	5.3	5.3	2.1
Research hospitals	2.9	1.5	0.3	0.5	0.6	0.1
Biomedical research institutions	8.6	2.0	0.2	2.3	4.1	0.8
Medical sciences	36.0	9.6	7.9	10.5	7.8	2.8
Academic institutions	26.6	4.6	6.9	9.6	5.5	2.4
In medical schools[3]	18.9	2.7	4.8	7.6	3.8	1.6
Outside medical schools	7.7	1.9	2.1	2.0	1.7	0.8
Research hospitals	6.1	4.2	0.5	0.3	0.9	0.4
Biomedical research institutions	3.3	0.8	0.5	0.6	1.4	0.0

[1] Guam and Puerto Rico are excluded from the regions but are included in other table columns.

[2] States in which institutions are eligible for grants through the Institutional Development Award (IDeA) program of the National Institutes of Health.

[3] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 44. Institutional distribution of biomedical research space, by field: 1999

Field	Net assignable square feet [in millions]					
		Academic institutions				
	All institutions	All academic institutions	In medical schools	Outside medical schools	Research hospitals	Biomedical research institutions
Biological sciences.....	43.7	32.2	12.7	19.5	2.9	8.6
Medical sciences........	36.0	26.6	18.9	7.7	6.1	3.3

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 45. Percentage of institutions with leased biomedical research space, by field and type of institution: 1999

Field	All institutions	Academic institutions			Research hospitals	Biomedical research institutions
		All academic institutions	In medical schools	Outside medical schools		
Biological sciences.....	19	11	26	6	33	49
Medical sciences.......	30	25	43	15	25	53

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 46. Institutional distribution of animal research space, by type of space: 1999

Type of space	Net assignable square feet [in millions]			
	All institutions	Academic institutions	Research hospitals	Biomedical research institutions
All animal research space	15.6	12.7	0.8	2.1
Animal housing	11.1	9.0	0.5	1.6
Animal laboratories	4.5	3.7	0.3	0.5

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 47. Quality of biomedical research space, by field and type of institution: 1999

Field and type of institution	Total NASF [in millions][1]	Percent of net assignable square feet (NASF)			
		Suitable for		Requiring	
		The most scientifically competitive research	Most levels of research	Major repair or renovation	Replacement
Biological sciences	41	53	26	16	5
All academic institutions	30	44	30	20	6
Doctorate-granting institutions	29	44	29	20	6
At universities with medical schools[2]	18	47	27	20	7
In medical schools[2]	11	51	23	19	7
Outside medical schools	8	40	32	20	8
Research hospitals	2	69	23	6	3
Biomedical research institutions	8	81	13	5	1
Medical sciences	33	43	31	18	7
All academic institutions	25	40	32	21	6
Doctorate-granting institutions	25	40	32	21	6
At universities with medical schools[2]	22	41	31	21	7
In medical schools[2]	17	43	28	22	7
Outside medical schools	4	33	41	20	6
Research hospitals	6	50	31	11	8
Biomedical research institutions	3	61	21	6	12

[1] Total NASF is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program. Consequently, there may be small variations in the amount of NASF in this table and the NASF amounts in other tables.

[2] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

KEY: NASF = net assignable square feet

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 48. Biomedical research space needs, by field and type of institution: 1999

Field and type of institution	Net assignable square feet (NASF) [in millions] Available space in 1999[1]	Available space needing replacement[2]	Additional space needed[2]
Biological sciences	43.7	2.0	10.9
All academic institutions	32.2	1.9	9.8
Doctorate-granting institutions	30.8	1.7	8.8
At universities with medical schools[3]	20.2	1.3	9.7
In medical schools[3]	12.4	0.7	4.5
Outside medical schools	7.8	0.6	5.2
Research hospitals	2.9	0.1	0.3
Biomedical research institutions	8.6	0.1	0.8
Medical sciences	36.0	2.4	10.7
All academic institutions	26.6	1.6	8.3
Doctorate-granting institutions	26.5	1.6	8.2
At universities with medical schools[3]	23.3	1.4	8.3
In medical schools[3]	18.6	1.2	5.8
Outside medical schools	4.7	0.3	2.5
Research hospitals	6.1	0.5	2.1
Biomedical research institutions	3.3	0.3	0.3

[1] Includes research space identified by all institutions, regardless of whether the institution rated the quality of the space.

[2] Space was assessed for current research program commitments.

[3] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 49. Quality of animal research space, by type of institution: 1999

Type of institution	Total NASF [in millions][1]	Percent of net assignable square feet (NASF)			
		Suitable for		Requiring	
		The most scientifically competitive research	Most levels of research	Major repair or renovation	Replacement
All institutions	15.0	56.9	25.9	9.8	7.3
Academic institutions	12.2	53.6	27.3	10.7	8.3
Research hospitals	0.8	69.9	17.9	7.7	4.5
Biomedical research institutions	1.9	72.4	20.7	4.9	2.0

[1] Total NASF is the amount of NASF located at only those institutions which also rated the quality of their space for their current research program commitments. Consequently, there may be small variations in the amount of NASF in this table and the NASF amounts in other tables.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities.

Table 50. Animal research space needs, by type of institution: 1999

Type of institution	Net assignable square feet (NASF) [in millions]		
	Available space in 1999	Available space needing replacement[1]	Additional space needed[1]
All institutions	15.65	1.10	2.50
Academic institutions	12.70	1.02	1.91
Research hospitals	0.83	0.04	0.23
Biomedical research institutions	2.11	0.04	0.36

[1] Space was assessed for current research program commitments.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 51. Repair or renovation of biomedical research space, by field and type of institution: FYs 1998-2001

	Net assignable square feet (NASF) [in millions]			
	Available in FY 1999		Repair or renovation	
Field and type of institution	Total[1]	Needing repair or renovation[2]	Started in FYs 1998 or 1999	Planned for FYs 2000 or 2001
Biological sciences	43.7	6.7	5.4	4.4
All academic institutions	32.2	6.2	4.3	3.8
Doctorate-granting institutions	30.8	5.9	4.2	3.5
At universities with medical schools[3]	20.2	3.5	3.0	2.4
In medical schools[3]	12.4	2.0	2.2	1.9
Outside medical schools	7.8	1.5	0.7	0.5
Research hospitals	2.9	0.1	0.1	0.1
Biomedical research institutions	8.6	0.4	1.0	0.5
Medical sciences	36.0	6.1	3.3	3.6
All academic institutions	26.6	5.2	2.8	3.1
Doctorate-granting institutions	26.5	5.2	2.7	3.1
At universities with medical schools[3]	23.3	4.7	2.5	2.8
In medical schools[3]	18.6	3.8	1.6	2.3
Outside medical schools	4.7	0.9	0.9	0.5
Research hospitals	6.1	0.7	0.4	0.3
Biomedical research institutions	3.3	0.2	0.1	0.2

[1] Includes research space identified by all institutions, regardless of whether the institution rated the quality of the space.

[2] Space was assessed for current research program commitments.

[3] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 52. New construction of biomedical research space, by field and type of institution: FYs 1998-2001

Field and type of institution	Net assignable square feet [in millions]		
		New construction	
	Available in FY 1999[1]	Started in FYs 1998 or 1999	Planned for FYs 2000 or 2001
Biological sciences	43.7	4.0	5.9
All academic institutions	32.2	1.9	5.0
Doctorate-granting institutions	30.8	1.8	4.8
At universities with medical schools[2]	20.2	1.3	4.2
In medical schools[2]	12.4	0.9	1.5
Outside medical schools	7.8	0.4	2.8
Research hospitals	2.9	0.4	0.2
Biomedical research institutions	8.6	1.7	0.7
Medical sciences	36.0	3.9	4.9
All academic institutions	26.6	2.1	4.2
Doctorate-granting institutions	26.5	1.9	4.2
At universities with medical schools[2]	23.3	1.5	3.9
In medical schools[2]	18.6	1.1	1.4
Outside medical schools	4.7	0.5	2.5
Research hospitals	6.1	1.7	0.4
Biomedical research institutions	3.3	0.1	0.3

[1] Includes research space identified by all institutions, regardless of whether the institution rated the quality of the space.

[2] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 53. Repair or renovation of animal research space, by type of institution: FYs 1998-2001

Type of institution	Net assignable square feet (NASF) [in millions]		
		Repair or renovation	
	Available in FY 1999	Started in FYs 1998 or 1999	Planned to start in FYs 2000 or 2001
All institutions	15.65	0.48	0.67
Academic institutions	12.70	0.38	0.54
Research hospitals	0.83	0.06	0.01
Biomedical research institutions	2.11	0.04	0.11

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 54. New construction of animal research space, by type of institution: FYs 1998-2001

Type of institution	Net assignable square feet (NASF) [in millions]		
		Repair or renovation	
	Available in FY 1999	Started in FYs 1998 or 1999	Planned to start in FYs 2000 or 2001
All institutions	15.65	0.55	0.88
Academic institutions	12.70	0.41	0.62
Research hospitals	0.83	0.11	0.07
Biomedical research institutions	2.11	0.04	0.19

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 55. Cost to repair or renovate biomedical research space, by field and type of institution: FYs 1998-2001

Field and type of institution	Cost of repair and renovation [in millions of current dollars]			
	Started in FYs 1998 or 1999	Planned		Deferred and not included in institutional plan
		To start FYs 2000 or 2001	To start after FY 2001	
Biological sciences	616	722	738	463
All academic institutions	489	597	620	433
Doctorate-granting institutions	475	555	582	424
At universities with medical schools[1]	350	413	367	247
In medical schools[1]	233	315	149	221
Outside medical schools	118	98	218	26
Research hospitals	11	67	*	1
Biomedical research institutions	115	58	118	29
Medical sciences	418	825	569	236
All academic institutions	350	707	497	217
Doctorate-granting institutions	347	706	497	218
At universities with medical schools[1]	327	652	459	189
In medical schools[1]	241	596	374	140
Outside medical schools	86	56	85	49
Research hospitals	61	88	57	19
Biomedical research institutions	8	29	16	*

[1] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

NOTES: Components may not add to totals due to rounding.

A deferred project refers to a repair/renovation or new construction project that: is necessary to meet your current S&E research program commitments; is not scheduled for your FYs 2000 or 2001; does not have funding; and is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments. Includes only projects over $100,000.

KEY: * = Less than .5 million

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 56. Cost of new construction of biomedical research space, by field and type of institution: FYs 1998-2001

Field and type of institution	Cost of new construction [in millions of current dollars]			
		Planned		
	Started in FYs 1998 or 1999	To start FYs 2000 or 2001	To start after FY 2001	Deferred and not included in institutional plan
Biological sciences	1,214	2,843	1,920	386
All academic institutions	683	2,530	1,894	285
Doctorate-granting institutions	648	2,455	1,763	278
At universities with medical schools[1]	487	2,181	973	158
In medical schools[1]	293	1,480	449	125
Outside medical schools	194	701	524	33
Research hospitals	275	104	*	3
Biomedical research institutions	256	209	27	99
Medical sciences	1,222	2,767	2,283	529
All academic institutions	848	2,471	2,090	417
Doctorate-granting institutions	815	2,469	2,022	417
At universities with medical schools[1]	759	2,372	1,590	326
In medical schools[1]	499	1,251	1,307	253
Outside medical schools	260	1,121	283	74
Research hospitals	316	211	12	102
Biomedical research institutions	58	85	180	10

[1] Only includes medical schools accredited by the American Association of Medical Colleges. Includes stand-alone medical schools.

NOTES: Components may not add to totals due to rounding.

A deferred project refers to a repair/renovation or new construction project that: is necessary to meet your current S&E research program commitments; is not scheduled for your FYs 2000 or 2001; does not have funding; and is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments. Includes only projects over $100,000.

KEY: * = Less than .5 million

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 57. Cost of repair or renovation of animal research space, by type of institution: FYs 1998-2001

	Cost of repair or renovation [in millions of current dollars]	
Type of institution	Started in FYs 1998 or 1999	Planned for FYs 2000 or 2001
All institutions	100.3	212.6
Academic institutions	68.2	200.1
Research hospitals	26.8	2.4
Biomedical research institutions	5.3	10.1

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

Table 58. Cost of new construction of animal research space, by type of institution: FYs 1998-2001

Type of institution	Cost of new construction [in millions of current dollars] Started in FYs 1998 or 1999	Cost of new construction [in millions of current dollars] Planned for FYs 2000 or 2001
All institutions	339.0	438.9
Academic institutions	232.9	315.2
Research hospitals	85.3	33.3
Biomedical research institutions	20.8	90.3

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Scientific and Engineering Research Facilities

SECTION C.

LISTS OF INSTITUTIONS

LIST OF ACADEMIC INSTITUTIONS IN THE CENSUS

1. Abilene Christian University
2. Adelphi University
3. Alabama Agricultural and Mechanical University
4. Alabama State University
5. Albany Medical College
6. Albany State University
7. Alcorn State University
8. Alfred University
9. Amherst College
10. Andrews University
11. Antioch University
12. Appalachian State University
13. Applied Physics Lab
14. Arizona State University
15. Arkansas State University
16. Arkansas Tech University
17. Auburn University
18. Ball State University
19. Barnard College
20. Bates College
21. Baylor College of Dentistry
22. Baylor College of Medicine
23. Baylor University
24. Benedict College
25. Bennett College
26. Bethune Cookman College
27. Biola University
28. Bluefield State College
29. Boise State University
30. Boston College
31. Boston University
32. Bowdoin College
33. Bowie State University
34. Bowling Green State University
35. Bradley University
36. Brandeis University
37. Brigham Young University
38. Brown University
39. Bryn Mawr College
40. California Institute of Integral Studies
41. California Institute of Technology
42. California Polytechnic State University-San Luis Obispo
43. California School of Professional Psychology - Berkeley
44. California School of Professional Psychology at Fresno
45. California School of Professional Psychology at Los Angeles
46. California School of Professional Psychology at San Diego
47. California State University-Chico

48. California State University-Fullerton
49. California State University-Long Beach
50. California State University-Northridge
51. California State University-San Bernardino
52. Carnegie Mellon University
53. Case Western Reserve University
54. Central Michigan University
55. Central State University
56. Charles R. Drew University of Medicine & Science
57. Chicago State University
58. City University of New York Brooklyn College
59. City University of New York City College
60. City University of New York College of Staten Island
61. City University of New York Graduate School and University
62. City University of New York Herbert H. Lehman College
63. City University of New York Hunter College
64. City University of New York John Jay College of Criminal Justice
65. City University of New York Queens College
66. City University of New York York College
67. Claflin College
68. Claremont Graduate University
69. Clark Atlanta University
70. Clark University
71. Clarkson University
72. Clemson University
73. Cleveland State University
74. Colby College
75. College of Charleston
76. College of the Holy Cross
77. College of William and Mary
78. Colorado College
79. Colorado School of Mines
80. Colorado State University
81. Columbia University in the City of New York
82. Connecticut College
83. Cooper Union
84. Coppin State College
85. Cornell University
86. Creighton University
87. Dartmouth College
88. Delaware State University
89. DePaul University
90. Desert Research Institute
91. Dickinson College
92. Dillard University
93. Drexel University
94. Duke University
95. Duquesne University
96. East Carolina University
97. East Tennessee State University

98. Eastern Virginia Medical School
99. Eastern Washington University
100. Elizabeth City State University
101. Embry-Riddle Aeronautical University
102. Emory University
103. Fairleigh Dickinson University
104. Fayetteville State University
105. Ferris State University
106. Finch University of Health Sciences/The Chicago Medical School
107. Fisk University
108. Florida Agricultural and Mechanical University
109. Florida Atlantic University
110. Florida Institute of Technology
111. Florida International University
112. Florida State University
113. Fordham University
114. Forest Institute of Professional Psychology
115. Fort Lewis College
116. Fort Valley State University
117. Franklin & Marshall College
118. Fuller Theological Seminary
119. Furman University
120. Gallaudet University
121. George Mason University
122. George Washington University
123. Georgetown University
124. Georgia Institute of Technology
125. Georgia State University
126. Grambling State University
127. Grand Valley State University
128. Grinnell College
129. Hamilton College
130. Hampshire College
131. Hampton University
132. Harvard University
133. Haverford College
134. Hofstra University
135. Howard University
136. Humboldt State University
137. Idaho State University
138. Illinois Institute of Technology
139. Illinois State University
140. Indiana State University
141. Indiana University at Bloomington
142. Indiana University of Pennsylvania (All campuses)
143. Institute of Paper Science and Technology
144. Institute of Textile Technology
145. Iowa State University
146. Ithaca College
147. Jackson State University

148. James Madison University
149. Jarvis Christian College
150. Johns Hopkins University
151. Johnson C. Smith University
152. Kansas State University
153. Kent State University
154. Kentucky State University
155. Kettering University
156. Kirksville College of Osteopathic Medicine
157. Kutztown University of Pennsylvania
158. La Salle University
159. Lafayette College
160. Lamar University
161. Langston University
162. Lehigh University
163. Lemoyne-Owen College
164. Lewis and Clark College
165. Lincoln University
166. Lincoln University (PA)
167. Loma Linda University
168. Long Island University
169. Louisiana State University System Office (All Campuses)
170. Louisiana Tech University
171. Loyola College in Maryland
172. Loyola University of Chicago
173. Maharishi University of Management
174. Manhattan College
175. Mankato State University
176. Marquette University
177. Marshall University
178. Massachusetts College of Pharmacy and Allied Health Sciences
179. Massachusetts Institute of Technology
180. Medical College of Georgia
181. Medical College of Ohio
182. Medical College of Wisconsin
183. Medical University of South Carolina
184. Meharry Medical College
185. Mercer University
186. Miami University
187. Michigan State University
188. Michigan Technological University
189. Middle Tennessee State University
190. Midwestern University
191. Milwaukee School of Engineering
192. Mississippi State University
193. Mississippi Valley State University
194. Monmouth University
195. Montana State University - Bozeman
196. Morehouse College
197. Morehouse School of Medicine

198. Morgan State University
199. Morris Brown College
200. Mount Holyoke College
201. Mount Sinai School of Medicine
202. Murray State University
203. New England College of Optometry
204. New Jersey Institute of Technology
205. New Mexico Highlands University
206. New Mexico Institute of Mining and Technology
207. New Mexico State University Main Campus
208. New School University
209. New York Institute of Technology - Old Westbury
210. New York Medical College
211. New York University
212. Norfolk State University
213. North Carolina Agricultural and Technical State University
214. North Carolina Central University
215. North Carolina State University
216. North Dakota State University
217. Northeast Louisiana University
218. Northeastern Illinois University
219. Northeastern Ohio Universities College of Medicine
220. Northeastern University
221. Northern Arizona University
222. Northern Illinois University
223. Northwestern University
224. Nova Southeastern University
225. Oakland University
226. Oakwood College
227. Occidental College
228. Ohio University Main Campus
229. Ohio Wesleyan University
230. Oklahoma State University Main Campus
231. Old Dominion University
232. Oregon Graduate Institute of Science and Technology
233. Oregon Health Sciences University
234. Oregon State University
235. Pace University
236. Pacific University
237. Penn State University Park
238. Pepperdine University
239. Philadelphia College of Osteopathic Medicine
240. Philadelphia College of Pharmacy and Science
241. Philander Smith College
242. Pittsburg State University
243. Pitzer College
244. Polytechnic University
245. Pomona College
246. Ponce School of Medicine
247. Portland State University

248. Prairie View A & M University
249. Princeton University
250. Providence College
251. Purchase College, State University of New York
252. Purdue University
253. Radford University
254. Rensselaer Polytechnic Institute
255. Rice University
256. Rochester Institute of Technology
257. Rockefeller University
258. Rush University
259. Rust College
260. Rutgers, State University of New Jersey
261. Saint Cloud State University
262. Saint John's University
263. Saint Joseph's University
264. Saint Louis University
265. Salem-Teikyo University
266. Sam Houston State University
267. San Diego State University
268. San Jose State University
269. Santa Clara University
270. Savannah State University
271. Selma University
272. Seton Hall University
273. Shaw University
274. Skidmore College
275. Smith College
276. Sonoma State University
277. South Carolina State University
278. South Dakota School of Mines and Technology
279. South Dakota State University
280. Southern Illinois University at Carbondale
281. Southern Illinois University at Edwardsville
282. Southern Methodist University
283. Southern Oregon University
284. Southern University & Agricultural & Mechanical College
285. Southwest Missouri State University
286. Southwest Texas State University
287. Spalding University
288. Spelman College
289. Stanford University
290. State University of New York at Albany
291. State University of New York at Binghamton
292. State University of New York at Buffalo
293. State University of New York at Stony Brook
294. State University of New York College at Brockport
295. State University of New York College at Buffalo
296. State University of New York College at Geneseo
297. State University of New York College at Old Westbury

298. State University of New York College at Oswego
299. State University of New York College at Plattsburgh
300. State University of New York College of Environmental Sciences
301. State University of New York College of Optometry
302. State University of New York Health Science Center at Brooklyn
303. State University of New York Health Science Center at Syracuse
304. Stephen F. Austin State University
305. Stevens Institute of Technology
306. Sul Ross State University
307. Swarthmore College
308. Syracuse University Main Campus
309. Tarleton State University
310. Teachers College, Columbia University
311. Temple University
312. Tennessee State University
313. Tennessee Technological University
314. Texas A & M University
315. Texas A & M University - Commerce
316. Texas A & M University - Kingsville
317. Texas Christian University
318. Texas Southern University
319. Texas Tech University
320. Texas Woman's University
321. The American University
322. The Catholic University of America
323. The College of Wooster
324. The Ohio State University Main Campus
325. The Pontifical Catholic University of Puerto Rico
326. The University of Akron, Main Campus
327. The University of Alabama
328. The University of Health Sciences
329. The University of Memphis
330. The University of Montana
331. Thomas Jefferson University
332. Tougaloo College
333. Towson University
334. Truman State University
335. Tufts University
336. Tulane University
337. Tuskegee University
338. University of Maryland Center for Environmental Science
339. University of Tennessee Agricultural Institute
340. University of Tennessee Space Institute
341. University of Texas, MD Anderson Cancer Center
342. UMDNJ-New Jersey Medical School
343. Union College
344. Union Institute
345. United States International University
346. Universidad Central Del Caribe
347. University of Alabama at Birmingham

348. University of Alabama in Huntsville
349. University of Alaska Fairbanks
350. University of Alaska Southeast
351. University of Arizona
352. University of Arkansas at Pine Bluff
353. University of Arkansas for Medical Sciences
354. University of Arkansas
355. University of California-Berkeley
356. University of California-Davis
357. University of California-Irvine
358. University of California-Los Angeles
359. University of California-Riverside
360. University of California-San Diego
361. University of California-San Francisco
362. University of California-Santa Barbara
363. University of California-Santa Cruz
364. University of Central Florida
365. University of Central Oklahoma
366. University of Chicago
367. University of Cincinnati
368. University of Colorado at Boulder
369. University of Colorado at Colorado Springs
370. University of Colorado at Denver
371. University of Colorado Health Sciences Center
372. University of Connecticut
373. University of Dallas
374. University of Dayton
375. University of Delaware
376. University of Denver
377. University of Detroit Mercy
378. University of Florida
379. University of Georgia
380. University of Guam
381. University of Hartford
382. University of Hawaii at Manoa
383. University of Houston
384. University of Houston - Clear Lake
385. University of Idaho
386. University of Illinois at Chicago
387. University of Illinois at Urbana-Champaign
388. University of Iowa
389. University of Kansas Main Campus
390. University of Kentucky
391. University of Louisville
392. University of Maine
393. University of Maryland Baltimore
394. University of Maryland Baltimore County
395. University of Maryland Biotechnology Institute
396. University of Maryland College Park
397. University of Maryland Eastern Shore

398. University of Massachusetts
399. University of Massachusetts at Worcester
400. University of Massachusetts Boston
401. University of Massachusetts Dartmouth
402. University of Massachusetts Lowell
403. University of Miami
404. University of Michigan-Ann Arbor
405. University of Minnesota-Twin Cities
406. University of Mississippi
407. University of Missouri - Columbia
408. University of Missouri - Kansas City
409. University of Missouri - Rolla
410. University of Missouri - Saint Louis
411. University of Nebraska - Lincoln
412. University of Nebraska at Omaha
413. University of Nebraska Medical Center
414. University of Nevada, Reno
415. University of Nevada-Las Vegas
416. University of New Hampshire
417. University of New Haven
418. University of New Mexico
419. University of North Carolina at Chapel Hill
420. University of North Carolina at Charlotte
421. University of North Carolina at Greensboro
422. University of North Carolina at Wilmington
423. University of North Dakota
424. University of North Texas
425. University of North Texas Health Science Center at Fort Worth
426. University of Northern Colorado
427. University of Northern Iowa
428. University of Notre Dame
429. University of Oklahoma Norman Campus
430. University of Oregon
431. University of Osteopathic Medicine and Health Sciences
432. University of Pennsylvania
433. University of Pittsburgh
434. University of Portland
435. University of Puerto Rico-Mayaguez
436. University of Puerto Rico Medical Sciences
437. University of Puerto Rico-Rio Piedras
438. University of Rhode Island
439. University of Richmond
440. University of Rochester
441. University of Saint Thomas
442. University of San Diego
443. University of South Alabama
444. University of South Carolina - Columbia
445. University of South Dakota
446. University of South Florida
447. University of Southern California

448. University of Southern Colorado
449. University of Southern Maine
450. University of Southern Mississippi
451. University of Southwestern Louisiana
452. University of Tennessee at Chattanooga
453. University of Tennessee, Knoxville
454. University of Tennessee, Memphis
455. University of Texas - Pan American
456. University of Texas at Arlington
457. University of Texas at Austin
458. University of Texas at Dallas
459. University of Texas at El Paso
460. University of Texas at San Antonio
461. University of Texas Health Science Center at Houston
462. University of Texas Health Science Center at San Antonio
463. University of Texas Medical Branch at Galveston
464. University of Texas Southwestern Medical Center at Dallas
465. University of the District of Columbia
466. University of the Pacific
467. University of the Virgin Islands
468. University of Toledo
469. University of Tulsa
470. University of Utah
471. University of Vermont
472. University of Virginia
473. University of Washington - Seattle
474. University of West Florida
475. University of Wisconsin-Eau Claire
476. University of Wisconsin-Green Bay
477. University of Wisconsin-La Crosse
478. University of Wisconsin-Madison
479. University of Wisconsin-Milwaukee
480. University of Wisconsin-Oshkosh
481. University of Wisconsin-Parkside
482. University of Wisconsin-River Falls
483. University of Wisconsin-Stevens Point
484. University of Wisconsin-Stout
485. University of Wisconsin-Superior
486. University of Wisconsin-Whitewater
487. University of Wyoming
488. Utah State University
489. Valparaiso University
490. Vanderbilt University
491. Vassar College
492. Villanova University
493. Virginia Commonwealth University
494. Virginia Military Institute
495. Virginia Polytechnic Institute and State University
496. Virginia State University

497. Virginia Union University
498. Wake Forest University
499. Washington State University
500. Washington University
501. Wayne State University
502. Wellesley College
503. Wentworth Institute of Technology
504. Wesleyan University
505. West Chester University of Pennsylvania
506. West Texas A & M University
507. West Virginia School of Osteopathic Medicine
508. West Virginia State College
509. West Virginia University
510. Western Carolina University
511. Western Illinois University
512. Western Kentucky University
513. Western Michigan University
514. Western University of Health Sciences
515. Western Washington University
516. Whitman College
517. Wichita State University
518. Widener University
519. Wilberforce University
520. Willamette University
521. Williams College
522. Winston-Salem State University
523. Woods Hole Oceanographic Institution
524. Worcester Polytechnic Institute
525. Wright State University Main Campus
526. Xavier University of Louisiana
527. Yale University
528. Yeshiva University
529. Youngstown State University

LIST OF BIOMEDICAL ORGANIZATIONS IN THE CENSUS

1. Aaron Diamond Aids Research Center
2. Addiction Research Institute
3. Agouron Institute
4. Allegheny-Singer Research Institute
5. Alton Ochsner Medical Foundation
6. AMC Cancer Research Center
7. American Type Culture Collection
8. Arkansas Children's Hospital (Little Rock)
9. Barnes-Jewish Hospital
10. Battelle Centers/Public Health Research & Evaluation
11. Battelle Memorial Institute
12. Bay Area Tumor Institute
13. Baylor Research Institute
14. Beckman Research Institute
15. Beth Israel Deaconess Medical Center
16. Beth Israel Medical Center (New York)
17. Biomedical Research Institute
18. Blood Center of Southeastern Wisconsin
19. Boston Biomedical Research Institute
20. Boston Medical Center
21. Boyce Thompson Institution for Plant Research
22. Brentwood Biomedical Research Institute
23. Brigham And Women's Hospital
24. Bronx-Lebanon Hospital Center (Bronx, NY)
25. Burnham Institute
26. Butler Hospital (Providence, RI)
27. Butterworth Hospital
28. California Pacific Medical Center-Pacific Camp
29. Cambridge Hospital
30. Catherine Mc Auley Health Center
31. Cedars-Sinai Medical Center
32. Center for Blood Research
33. Center for Health Studies
34. Central New York Research Corporation
35. Chemical Industry Institute of Toxicology
36. Children's Hospital (Boston)
37. Children's Hospital (Columbus)
38. Children's Hospital (Denver)
39. Children's Hospital (New Orleans)
40. Children's Hospital And Health Center
41. Children's Hospital And Regional Medical Center
42. Children's Hospital Medical Center (Cincinnati)
43. Children's Hospital Oakland
44. Children's Hospital Of Los Angeles
45. Children's Hospital Of Orange County
46. Children's Hospital Of Philadelphia
47. Children's Hospital Of Pittsburgh

48. Children's Memorial Hospital (Chicago)
49. Children's Mercy Hospital (Kansas City, MO)
50. Children's Research Institute
51. City of Hope National Medical Center
52. Cleveland Clinic Foundation
53. Cold Spring Harbor Laboratory
54. Connecticut Children's Medical Center
55. Cooper Hospital/University Medical Center
56. Cooper Institute for Aerobics Research
57. Coriell Institute for Medical Research
58. CTRC Research Foundation
59. Dana-Farber Cancer Institute
60. Decatur Memorial Hospital
61. Delaware Water Gap Science Institute
62. Doheny Eye Institute
63. East Bay Institute for Research and Education
64. Eleanor Roosevelt Institute for Cancer Research
65. Emma Pendleton Bradley Hospital
66. Ernest Gallo Clinic and Research Center
67. Eunice Kennedy Shriver Center for Mental Retardation
68. Evanston Northwestern Healthcare
69. Family Health International
70. Forsyth Dental Center
71. Foundation for Blood Research
72. Fox Chase Cancer Center
73. Fred Hutchinson Cancer Research Center
74. Friends Research Institute, Inc.
75. Frontier Science & Tech Research Foundation, Inc
76. Garden State Cancer Center/Center Molecular Medicine & Immunology
77. Genetic Information Research Institute
78. Good Samaritan Hospital & Medical Center (Portland, OR)
79. Good Samaritan Regional Medical Center
80. Guthrie Foundation for Education and Research
81. Hackensack Medical Center
82. Harbor Branch Oceanographic Institution
83. Harbor-UCLA Research & Education Institute
84. Hartford Hospital
85. Haskins Laboratories
86. Hauptman-Woodward Medical Research Institute
87. Health Science Center at Syracuse
88. Hebrew Rehabilitation Center For Aged
89. Hektoen Institute for Medical Research
90. Helen Hayes Hospital
91. Hospital for Joint Diseases Orthopedic Institute
92. Hospital for Special Surgery
93. House Ear Institute
94. Howard Brown Health Center
95. Hughes Institute
96. Human Biomolecular Research Institute
97. Huntington Medical Research Institutes

98. IIT Research Institute
99. Infectious Disease Research Institute
100. Ingalls Memorial Hospital
101. Institute for Basic Research in Developmental Disabilities
102. Institute for Genomic Research
103. Integrated Research Services, Inc.
104. Interfaith Medical Center (Brooklyn)
105. Irwin Memorial Blood Centers
106. J. David Gladstone Institutes
107. Jackson Laboratory
108. John B. Pierce Laboratory, Inc.
109. John Wayne Cancer Institute
110. Johns Hopkins Bayview Medical Center
111. Joslin Diabetes Center
112. Judge Baker Children's Center
113. Kaiser Foundation Hospitals
114. Kapiolani Medical Center for Women/Children
115. Kennedy Krieger Institute, Inc.
116. Kenneth S. Warren Laboratories
117. Kessler Institute for Rehabilitation
118. Kettering Medical Center
119. Kuakini Medical Center
120. La Jolla Institute for Allergy/Immunology
121. La Jolla Institute for Experimental Medicine
122. Lankenau Hospital
123. LDS Hospital
124. Long Island Jewish Medical Center
125. Lovelace Biomedical & Environmental Research
126. Magee-Women's Hospital
127. Maimonides Medical Center (Brooklyn)
128. Maine Medical Center
129. Marine Biological Laboratory
130. Marshfield Clinic
131. Mary Imogene Bassett Hospital
132. Maryland Medical Research Institute
133. Masonic Medical Research Laboratory, Inc
134. Massachusetts Eye and Ear Infirmary
135. Massachusetts General Hospital
136. Massachusetts Health Research Institute
137. Massachusetts Mental Health Research Corporation
138. Mayo Clinic Arizona
139. Mayo Clinic Jacksonville
140. Mayo Foundation
141. Mc Laughlin Research Institute for Biomedical Sciences
142. Mc Lean Hospital (Belmont, MA)
143. Medical Center of Delaware, Inc.
144. Medlantic Research Institute
145. Memorial Hospital of Rhode Island
146. Mercy Hospital of Pittsburgh
147. Methodist Hospital (Houston, TX)

148. Metrohealth Medical Center
149. Midwest Research Institute
150. Minneapolis Medical Research Foundation, Inc.
151. Miriam Hospital
152. Mitretek Systems, Inc.
153. Molecular Research Institute
154. Molecular Science Institute
155. Monell Chemical Senses Center
156. Montefiore Medical Center (Bronx, NY)
157. Moss Rehabilitation Hospital
158. Mount Desert Island Biological Laboratory
159. Mount Sinai Medical Center (Miami Beach)
160. Narrows Institute for Biomedical Research Inc
161. Nathan S. Kline Institute for Psychological Research
162. National Development & Research Institutes
163. National Disease Research Interchange
164. Natural Medicines Research Institute
165. Nemours Children's Clinic
166. New England Medical Center
167. New York Blood Center
168. New York Eye and Ear Infirmary
169. New York Methodist Hospital
170. New York State Psychiatric Institute
171. North Broward Hospital District
172. North Jersey Community Research Initiative
173. Northeast Biomedical Research Institute
174. Northern California Cancer Center
175. Northern California Institute for Research & Education
176. Northwest Hospital
177. Oak Ridge Associated Universities
178. Oklahoma Medical Research Foundation
179. Oregon Research Institute
180. Oregon Social Learning Center, Inc.
181. Pacific Institute for Research and Evaluation
182. Pacific Northwest Research Institute
183. Palmetto Richland Memorial Hospital
184. Palo Alto Institute for Research & Education
185. Palo Alto Institute/Molecular Medicine
186. Palo Alto Medical Foundation Research Institute
187. Parkinson's Institute
188. Pennington Biomedical Research Center
189. Philadelphia Geriatric Center-Friedman Hospital
190. Picower Institute for Medical Research
191. Population Council
192. Providence Portland Medical Center
193. Public Health Research Institute
194. Puget Sound Blood Center and Program
195. Queen's Medical Center
196. Rehabilitation Institute Research Corp.

197. Research Institute on Addictions
198. Research Triangle Institute
199. Retina Foundation of the Southwest
200. Rhode Island Hospital (Providence, RI)
201. Riverside Research Institute
202. Roger Maris Cancer Center
203. Roger Williams Hospital
204. Roswell Park Cancer Institute
205. RS Dow Neurological Sciences Institute
206. Rush-Presbyterian-St Lukes Medical Center
207. Salk Institute For Biological Studies
208. Schepens Eye Research Institute
209. Scientific Analysis Corporation
210. Scott and White Memorial Hospital
211. Scottish Rite Children's Medical Center
212. Scripps Research Institute
213. Seattle Biomedical Research Institute
214. Sidney Kimmel Cancer Center
215. Sierra Biomedical Research Corporation
216. Sinai Hospital of Baltimore
217. Sinai Samaritan Medical Center
218. Sloan-Kettering Institute for Cancer Research
219. Smith-Kettlewell Eye Research Institute
220. Southern Research Institute
221. Southwest Foundation for Biomedical Research
222. Spartanburg Regional Medical Center
223. St. Elizabeth's Medical Center of Boston
224. St. Francis Hospital/Medical Center (Hartford, CT)
225. St. Joseph's Hosp/Medical Center (Phoenix)
226. St. Joseph's Hospital (Atlanta)
227. St. Jude Children's Research Hospital
228. St. Luke's Roosevelt Hospital Center (New York)
229. St. Luke's-Roosevelt Institute for Health Sciences
230. St. Mary's Hospital/Medical Center (Grand Junction, CO)
231. St. Vincent Medical Center
232. Staub Pacific Health Foundation-Health Research Institute
233. Strang Cancer Prevention Center
234. Sun Health Research Institute
235. Swedish Medical Center
236. Syracuse Research Corporation
237. Telemedicine Research Center
238. Texas Center for Infectious Disease
239. Torrey Pines Institute/Molecular Studies
240. Touro Infirmary
241. Trudeau Institute, Inc.
242. University City Science Center
243. Virginia Mason Research Center
244. Wadsworth Center
245. Weis Center for Research-Geisinger Clinic

246. Western Consortium for Public Health
247. Whitehead Institute for Biomedical Research
248. William Beaumont Hospital Research Institute
249. Wills Eye Hospital (Philadelphia)
250. Winifred Masterson Burke Medical Research Institute
251. Winifred Masterson Burke Rehabilitation Hospital
252. Winthrop-University Hospital
253. Wistar Institute
254. Women and Infants Hospital-Rhode Island

LIST OF HISPANIC-SERVING INSTITUTIONS IN THE CENSUS

1. California State University-Northridge
2. California State University-San Bernardino
3. Charles R. Drew University of Medicine & Science
4. City University of New York City College
5. City University of New York Herbert H. Lehman College
6. Florida International University
7. John Jay College of Criminal Justice/City University of New York
8. New Mexico Highlands University
9. New Mexico State University
10. Sul Ross State University
11. Texas A & M University - Kingsville
12. The Pontifical Catholic University of Puerto Rico
13. Universidad Central Del Caribe
14. University of Houston
15. University of New Mexico
16. University of Puerto Rico-Mayaguez
17. University of Puerto Rico Medical Sciences
18. University of Puerto Rico-Rio Piedras
19. University of Southern Colorado
20. University of Texas - Pan American
21. University of Texas at El Paso
22. University of Texas at San Antonio

THE ORIGINAL 29 HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

1. Alabama Agricultural and Mechanical University
2. Albany State University
3. Alcorn State University
4. Clark Atlanta University
5. Dillard University
6. Fisk University
7. Florida Agricultural and Mechanical University
8. Grambling State University
9. Howard University
10. Jackson State University
11. Kentucky State University
12. Lincoln University
13. Lincoln University (PA)
14. Meharry Medical College
15. Morehouse School of Medicine
16. Morgan State University
17. Norfolk State University
18. North Carolina Agricultural and Technical State
19. Prairie View A & M University
20. South Carolina State University
21. Southern University & Agricultural & Mechanical College
22. Tennessee State University
23. Texas Southern University
24. Tuskegee University
25. Central State University
26. University of Arkansas at Pine Bluff
27. University of Maryland Eastern Shore
28. University of the District of Columbia
29. Virginia State University

EXPANDED LIST OF HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

1. Alabama Agricultural and Mechanical University
2. Alabama State University
3. Albany State University
4. Alcorn State University
5. Benedict College
6. Bennett College
7. Bethune Cookman College
8. Bluefield State College
9. Bowie State University
10. Central State University
11. Claflin College
12. Clark Atlanta University
13. Coppin State College
14. Delaware State University
15. Dillard University
16. Elizabeth City State University
17. Fayetteville State University
18. Fisk University
19. Florida Agricultural and Mechanical University
20. Fort Valley State University
21. Grambling State University
22. Hampton University
23. Howard University
24. Jackson State University
25. Jarvis Christian College
26. Johnson C. Smith University
27. Kentucky State University
28. Langston University
29. Lemoyne-Owen College
30. Lincoln University
31. Lincoln University (PA)
32. Meharry Medical College
33. Mississippi Valley State University
34. Morehouse College
35. Morehouse School of Medicine
36. Morgan State University
37. Morris Brown College
38. Norfolk State University
39. North Carolina Agricultural and Technical State University
40. North Carolina Central University
41. Oak Wood College
42. Philander Smith College
43. Prairie View A&M University
44. Rust College
45. Savannah State University

46. Selma University
47. Shaw University
48. South Carolina State University
49. Southern University & Agricultural & Mechanical College (all campuses)
50. Spelman College
51. Tennessee State University
52. Texas Southern University
53. Tougaloo College
54. Tuskegee University
55. University of Arkansas at Pine Bluff
56. University of Maryland at Eastern Shore
57. University of the District of Columbia
58. University of the Virgin Islands
59. Virginia State University
60. Virginia Union University
61. West Virginia State College
62. Wilberforce University
63. Winston-Salem State University
64. Xavier University of Louisiana

AMERICAN ASSOCIATION OF MEDICAL COLLEGES
MEMBER MEDICAL SCHOOLS
JUNE 2000

1. Albany Medical College
2. Allegheny University of the Health Sciences
3. Baylor College of Medicine
4. Boston University
5. Brown University
6. Case Western Reserve University
7. Columbia University
8. Cornell University
9. Creighton University
10. Dartmouth College
11. Duke University
12. East Carolina University
13. East Tennessee State University
14. Eastern Virginia Medical School
15. Emory University
16. Finch University of Health Sciences/The Chicago Medical School
17. George Washington University
18. Georgetown University
19. Harvard University
20. Howard University
21. Indiana University
22. Johns Hopkins University
23. Loma Linda University
24. Louisiana State University
25. Loyola University of Chicago
26. Marshall University
27. Mayo Clinic Jacksonville
28. Medical College of Georgia
29. Medical College of Ohio
30. Medical College of Wisconsin
31. Medical University of South Carolina
32. Meharry Medical College
33. Mercer University
34. Michigan State University
35. Morehouse School of Medicine
36. Mount Sinai School of Medicine
37. New York Medical College
38. New York University
39. Northeastern Ohio Universities College of Medicine
40. Northwestern University
41. Oregon Health Sciences University
42. Pennsylvania State at University Park

43. Ponce School of Medicine
44. Rush University
45. Saint Louis University
46. Southern Illinois University at Carbondale
47. Stanford University
48. State University of New York at Buffalo
49. State University of New York at Health Science Center at Stony Brook
50. State University of New York at Health Science Center at Brooklyn
51. State University of New York at Health Science Center at Syracuse
52. Temple University
53. Texas A&M University at Commerce
54. Texas Technical University
55. The Ohio State University
56. The University of Texas Health Science Center at Houston
57. Thomas Jefferson University
58. Tufts University
59. Tulane University
60. UMDNJ-New Jersey Medical School
61. Universidad Central Del Caribe
62. University of Alabama at Birmingham
63. University of Arizona
64. University of Arkansas for Medical Sciences
65. University of California at Davis
66. University of California at Irvine
67. University of California at Los Angeles
68. University of California at San Diego
69. University of California at San Francisco
70. University of Chicago
71. University of Cincinnati
72. University of Colorado Health Sciences Center
73. University of Connecticut
74. University of Florida
75. University of Hawaii at Manoa
76. University of Illinois at Chicago
77. University of Iowa
78. University of Kansas
79. University of Kentucky
80. University of Louisville
81. University of Maryland Baltimore
82. University of Massachusetts at Worcester
83. University of Miami
84. University of Michigan at Ann Arbor
85. University of Minnesota at Twin Cities
86. University of Mississippi
87. University of Missouri at Columbia
88. University of Missouri at Kansas City
89. University of Nebraska Medical Center
90. University of Nevada at Reno
91. University of New Mexico

92. University of North Carolina at Chapel Hill
93. University of North Dakota Main Campus
94. University of Oklahoma at Norman
95. University of Pennsylvania
96. University of Pittsburgh at Pittsburgh
97. University of Puerto Rico Medical Sciences Campus
98. University of Rochester
99. University of South Alabama
100. University of South Carolina at Columbia
101. University of South Dakota
102. University of South Florida
103. University of Southern California
104. University of Tennessee at Memphis
105. University of Texas Health Science Center at San Antonio
106. University of Texas Medical Branch at Galveston
107. University of Texas Southwestern Medical Center at Dallas
108. University of Utah
109. University of Vermont
110. University of Virginia
111. University of Washington at Seattle
112. University of Wisconsin at Madison
113. Vanderbilt University
114. Virginia Commonwealth University
115. Wake Forest University
116. Washington University
117. Wayne State University
118. West Virginia University
119. Wright State University
120. Yale University
121. Yeshiva University

SECTION D.

SURVEY INSTRUMENT AND MATERIALS

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

nsf

OFFICE OF THE
DIRECTOR

Date

President's Name
Title
Institution
Address

Dear President's Name

I am writing to request your assistance in a matter of considerable importance to research efforts at higher education institutions. At the direction of Congress, the National Science Foundation is once again collecting information on the status and condition of academic science and engineering (S&E) research facilities in the United States. The *1999 NSF Survey of Scientific and Engineering Research Facilities,* co-sponsored by the Foundation and the National Institutes of Health, is about to begin. Your participation is very important to this effort.

The 1999 survey is the eighth in this biennial series and will form the basis for a Fall 2000 report to Congress. By providing information on the current status of research facilities and continuing the systematic assessment of changes in the status of facilities, the 1999 study will continue to provide policymakers with important updated data on the condition of S&E research facilities in the United States. A one-page summary of this survey is enclosed.

While your institution's participation in the survey is voluntary, we are certain that you appreciate the importance of this effort. We ask that you appoint a senior official to coordinate the survey at your institution. Please nominate this individual and return the enclosed coordinator identification form via fax at 617-492-5219 or by E-mailing the information to Abt Associates Inc., the contractor for the survey, at facilities@abtassoc.com. We would appreciate your response as soon as possible. A study representative will contact your office to make sure you have received this letter, if we have not heard from you. The complete package of survey materials will be sent in the next four to six weeks directly to the Coordinator you select.

To learn more about this study, you may wish to review the highlights of the most recent report to Congress at the study Web site: www.facilities.abtassoc.com. If you have any questions, please contact Dr. Leslie Christovich of the Division of Science Resources Studies at the National Science Foundation at (703) 306-1775, ext. 6910 or via e-mail at lchristo@nsf.gov. Thank you for your assistance in this important effort.

Sincerely,

Rita Colwell

Rita Colwell
Director

Enclosures: Coordinator Identification Form
Study Summary
Study Questions and Answers

«ABTID»

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
National Center for
Research Resources
Bethesda, Maryland 20892

Date

President's Name
Title
Institution
Address

Dear President's Name:

I am writing to request your assistance in a matter of considerable importance. Based on concerns raised by the academic community, Congress instructed the National Science Foundation (NSF) to collect information on the status and condition of science and engineering research facilities at the Nation's colleges and universities. At the request of the National Institutes of Health (NIH), which is co-sponsoring this effort, the 1999 *NSF Survey of Scientific and Engineering Research Facilities* again includes biomedical research organizations and independent hospitals. Your participation in the survey is voluntary.

The 1999 survey is the eighth in this biennial series and will form the basis for a September 2000 report to Congress. By providing an assessment of the current status of research facilities, and continuing the systematic assessment of changes in the status of facilities, the survey will provide policy makers with information not previously available. A one-page summary of this survey is enclosed.

I am certain that you appreciate the importance of this effort, and ask that you appoint a senior official to coordinate your institution's response. Please nominate this individual and return the enclosed coordinator identification form via fax at 617-492-5219 or by E-mailing the information to Abt Associates Inc., the contractor for the survey, at facilities@abtassoc.com. We would appreciate your response as soon as possible. A study representative will contact your office to make sure you have received this letter, if we have not heard from you. The complete package of survey materials will be sent in the next four to six weeks directly to the Coordinator you select.

To learn more about the study, you may wish to review the highlights of the most recent report to Congress at the study Web site: www.facilities.abtassoc.com. If you have any questions, please contact Dr. Leslie Christovich, NSF Project Officer for the study, at (703) 306-1775, ext. 6910 or via email at lchristo@nsf.gov. Thank you for your assistance in this important effort.

Sincerely yours,

Judith L. Vaitukaitis

Judith L. Vaitukaitis, M.D.
Director
National Center for Research Resources

Enclosures: Coordinator Identification Form
Study Summary
Study Questions and Answers

«ABTID»

National Science Foundation / National Institutes of Health
The 1999 Survey of Scientific and Engineering Research Facilities

INSTITUTIONAL COORDINATOR IDENTIFICATION FORM

President's Name **abtid**
Title
Institution
Address

1999 Institutional Coordinator Name: ______________________

Institutional Coordinator's Title: ______________________

Please provide detailed contact information for the Institutional Coordinator you have selected below:

Contact Information:

Department: ______________________

Institution: ______________________

Institutional Coordinator's Full Address: ______________________

____

____

City/ State/ Zip: ______________________

Institutional Coordinator's Telephone: (______) ______________________

Institutional Coordinator Email: ______________________

Appointed by: ______________________

Title: ______________________

Please Return the above information
via FAX: 1-617-492-5219 or Email: facilities@abtassoc.com
Attn: NSF/NIH – Facilities Survey

c/o Abt Associates Inc., 55 Wheeler Street, Cambridge, MA 02138
If you have any questions please Email us at: facilities@abtassoc.com

National Science Foundation

Summary
1999 Survey of Scientific and Engineering Research Facilities

This survey gathers data on the amount, condition, costs, and adequacy of the physical facilities used to conduct science and engineering (S&E) research at research-performing academic institutions, nonprofit research organizations, and research hospitals.

Background

During extensive Congressional hearings on the status of academic research facilities, many higher education officials expressed concerns about the financial burden of an increasing backlog of deferred maintenance, which was driven largely by the need to upgrade facilities to satisfy ever-growing technical, health and safety requirements. As a result of the hearings, in 1985 Congress directed the National Science Foundation (NSF) to design, establish, and maintain a biennial data collection and analytic capacity to identify and assess the research facilities needs of universities and colleges. Seven biennial surveys have been conducted.

Eligibility

The 1999 survey will collect data from academic institutions that have an S&E doctoral program, all others that have separately budgeted S&E research expenditures of $150,000 or more, and all Historically Black Colleges and Universities with any R&D. The National Institutes of Health (NIH), cosponsor of the survey, added nonprofit research organizations and independent research hospitals receiving NIH funding.

This survey is the only source of information on the status of the nation's scientific research facilities. As such, the study has generated great interest among research organizations, academic institutions, and federal officials. To provide the most complete information, NSF is conducting a census of eligible institutions this year. As a result of this broader effort, some institutions are being included for the first time.

The questionnaire collects data on the following:

- research square footage;
- current and planned capital projects of at least $100,000;
- costs and the source of funds associated with capital projects;
- assessment of the adequacy of the amount of facilities space; and,
- assessment of the condition and quality of research facilities.

Methodology

The survey will be conducted beginning in November of 1999, with expected completion in the winter of 2000. Institutional coordinators can complete either a paper and pencil version or an Internet questionnaire, which will offer on-line help and other features to make it more convenient to complete.

Report to Congress

The results of the study will be summarized in a report to Congress in September of 2000. Highlights of the report will be posted on the NSF Web site, www.nsf.gov. Currently, the site contains reports from each of the completed surveys in this ongoing effort. Please note that NSF and NIH do not use (or allow others to use) detailed responses in any manner that would identify a specific institution's data.

National Science Foundation

Participating Institutions

Questions and Answers

The 1999 Survey of Scientific and Engineering Research Facilities

1. **What is the purpose of the survey?**

   This survey resulted from a Congressional mandate to establish a system for identifying and assessing the research facilities needs of universities and colleges. The National Science Foundation (NSF) and the National Institutes of Health (NIH) currently co-sponsor the survey, which includes academic institutions, nonprofit biomedical research organizations and independent research hospitals. The survey collects data on square footage used for research in the sciences and engineering (S&E); current and planned capital projects; costs and sources of funds for construction, renovation and repair; and assessments of the condition, quality and adequacy of the space.

2. **Is it important for my institution to participate?**

   Yes, it is very important for each selected institution to participate. This survey is the only source of information on the status of the nation's S&E research facilities. As in the past, results of this year's survey will be submitted as a report to Congress. In addition, the study provides data used by the Executive Branch, many higher education associations, and university and college administrators to help make policy decisions.

3. **How was my institution selected to participate?**

   The survey is conducted on eligible academic institutions and biomedical research facilities. Eligible academic institutions have an S&E doctoral program or have separately budgeted S&E research expenditures of $150,000 or more. In addition, all Historically Black Colleges and Universities with any R&D expenditures are included. Nonprofit biomedical research organizations and independent research hospitals that receive at least $150,000 in extramural research funding from NIH are also eligible.

4. **Will my institution be identified by name?**

   NIH and NSF do not use (or allow others to use) detailed responses in any manner that would identify a specific institution's data. Only aggregate data appears in any reports or analysis.

5. **When will a summary of the results of the survey be available?**

   Data collection is scheduled to begin in mid-November 1999 so that a report to Congress can be submitted in September 2000 At that time, an overview of the results will be provided to all survey participants and will be posted on both the NSF Web site, www.nsf.gov and the study Web site, www.facilities.abtassoc.com.

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Date

Institutional Coordinator Name
Title
Department
Institution
Address

Dear Institutional Coordinator Name:

As you may know, you have been designated to serve as the Institutional Coordinator for your institution's response to the 1999 *Survey of Scientific and Engineering Research Facilities*.

Based on concerns raised by the academic community, Congress instructed the National Science Foundation (NSF) to collect information on the status and condition of science and engineering research facilities at the Nation's colleges and universities. At the request of the National Institutes of Health (NIH), which is co-sponsoring this effort, the 1999 study also includes biomedical research organizations and hospitals.

This survey is the only source of information on the status of the nation's scientific and engineering research facilities. The 1999 survey is the eighth in this biennial series and will form the basis for a Fall 2000 report to Congress. To meet the Congressional reporting deadline, we ask that you provide the information requested as soon as possible. Please note that you have the option of providing your responses via the web at: www.facilities.abtassoc.com. We recommend that you use the web version of the questionnaire because it is more convenient and will reduce the need for follow-up.

To learn more about this important, ongoing study, you may wish to review the highlights of the most recent report to Congress, available through the study web site at the address listed above.

In your role as the Institutional Coordinator for this survey, we would like you to identify those individuals at your institution who are knowledgeable about the requested information, collect the responses, and submit the information on behalf of your institution to Abt Associates Inc., the contractor for this effort.

Enclosed are: a paper version of the questionnaire for reference, a one-page study summary, study questions and answers, instructions, and your login and password for accessing the web version of the questionnaire. If you have any questions about completing the questionnaire, you may use our toll-free technical assistance number: 1-877-551-6139 or you may submit your questions to us via email at facilities@abtassoc.com. Or, you may contact Amy E. Graham, project director, at Abt Associates Inc. at (301) 913-0553. Thank you for your assistance in this important effort.

Sincerely,

Leslie Christovich

Leslie Christovich, Ph.D.
NSF Project Director

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National Science Foundation

Summary
1999 Survey of Scientific and Engineering Research Facilities

This survey gathers data on the amount, condition, costs, and adequacy of the physical facilities used to conduct science and engineering (S&E) research at research-performing academic institutions, nonprofit research organizations, and research hospitals.

Background

During extensive Congressional hearings on the status of academic research facilities, many higher education officials expressed concerns about the financial burden of an increasing backlog of deferred maintenance, which was driven largely by the need to upgrade facilities to satisfy ever-growing technical, health and safety requirements. As a result of the hearings, in 1985 Congress directed the National Science Foundation (NSF) to design, establish, and maintain a biennial data collection and analytic capacity to identify and assess the research facilities needs of universities and colleges. Seven biennial surveys have been conducted.

Eligibility

The 1999 survey will collect data from academic institutions that have an S&E doctoral program, all others that have separately budgeted S&E research expenditures of $150,000 or more, and all Historically Black Colleges and Universities with any R&D. The National Institutes of Health (NIH), cosponsor of the survey, added nonprofit research organizations and independent research hospitals receiving NIH funding.

This survey is the only source of information on the status of the nation's scientific research facilities. As such, the study has generated great interest among research organizations, academic institutions, and federal officials. To provide the most complete information, NSF is conducting a census of eligible institutions this year. As a result of this broader effort, some institutions are being included for the first time.

The questionnaire collects data on the following:

- research square footage;
- current and planned capital projects of at least $100,000;
- costs and the source of funds associated with capital projects;
- assessment of the adequacy of the amount of facilities space; and,
- assessment of the condition and quality of research facilities.

Methodology

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Report to Congress

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National Science Foundation

Institutional Coordinators

Questions and Answers

The 1999 Survey of Scientific and Engineering Research Facilities

1. **What is the purpose of the survey?**

   This survey resulted from a Congressional mandate to establish a system for identifying and assessing the research facilities needs of universities and colleges. The National Science Foundation and the National Institutes of Health currently co-sponsor the survey, which also includes nonprofit biomedical research organizations and independent research hospitals. The survey collects data on square footage used for research in the sciences and engineering; current and planned capital projects; costs and sources of funds for construction, renovation and repair; and assessments of the condition, quality and adequacy of the space.

2. **Is it important for my institution to participate?**

   Yes, it is very important for each selected institution to participate. This survey is the only source of information on the status of the nation's scientific and engineering research facilities. As in the past, results of this year's survey will be submitted as a report to Congress. In addition, the study provides data used by the Executive Branch, many higher education associations, and university and college administrators to help make policy decisions.

3. **What is the role of the institutional coordinator?**

   The institutional coordinator serves as the focal point for data collection at each institution. The coordinator must review the survey; identify sources of data; collect and review the information; and finally, submit the completed questionnaire to the survey contractor. Coordinators will also be the initial point of contact if questions arise during data analysis.

4. **How was I selected to be the institutional coordinator?**

   At the start of data collection, the president, chancellor, or director of each eligible institution was contacted and asked to nominate a coordinator. You were selected to serve in this important role.

5. **What is the deadline for the survey?**

   We ask that you provide the information requested as soon as possible. A thorough review and analysis of the data must be completed in the spring and summer in order to submit a final report to Congress in September of 2000. This ambitious schedule is necessary in order to meet Congressional reporting requirements.

6. **How long will it take to complete the survey?**

Past participants in this survey estimated that it requires about 24 hours to complete the survey. Institutions that have participated in the past may require less time because data from the most recent survey cycle will be provided to them. Institutions participating for the first time may require a little more time. All participants are urged to use the Internet version of the survey, located at the study Web site, www.facilities.abtassoc.com. The Internet questionnaire is convenient to use and will reduce the need for follow-up by staff at Abt Associates Inc., the contractor for the study. Complete instructions will be mailed with a hard copy of the questionnaire.

7. **Where do I go for help?**

Institutional coordinators can find answers to questions and get assistance with the survey in a number of ways. First, a study Web site, www.facilities.abtassoc.com has been established with the Internet version of the questionnaire, on-line help, and access to your institution's historical data. Second, the study Web site has links to the Overview from the most recent report to Congress. Coordinators may find it helpful to review this document for background and general understanding of the study. Finally, a staff of trained technical assistants will be contacting each coordinator regularly to track progress and to offer suggestions and guidance. The Technical Assistants can be reached at 1-877-551-6139.

ATTENTION

To access the **web version** of the your questionnaire, please go to the study web site:

www.facilities.abtassoc.com

Follow the instructions provided to access your institution's questionnaire.

Institutional Coordinator's Name

You will be prompted to enter your **Login ID**: abtid
and **Password**: Web Password

Please let us know if you have any questions by emailing us at facilities@abtassoc.com
or by calling our technical assistance number at 1-877-551-6139.

Thank you.

WEB SURVEY INSTRUCTIONS

Please read these brief but important instructions.

1. **To access the survey:** To find the survey, go to the study Web site:

   www.facilities.abtassoc.com

   and follow the instructions to access the questionnaire. You will be asked to enter your "Log-in ID" and Password. (This information was sent to each Institutional Coordinator.)

2. **Best browsers to use**: The survey works best with two Internet browsers: Internet Explorer (version 4.0 and above) and Netscape Navigator (version 4.0 and above). If you use an earlier version of these browsers or another browser and have trouble, please E:mail us at facilities@abtassoc.com. We will try to resolve the problem.

3. **To enter data in more than one session:** The survey is designed so that you can enter or modify data in more than one session with one EXCEPTION. If you click on the "click here to submit the completed survey," you will *not* be able to continue using the survey. This button should only be used when your data has been finalized and you are ready to submit it to NSF and NIH. If you click on this button accidentally, please email us at facilities@abtassoc.com and we will reactivate your ID.

4. **To move around in the survey:** There are two ways to move around in the survey, in sequence or by "jumping."

   - To move in sequence *forward,* click on the "Move forward / Save Data" button. (This also saves any data that you entered.) To move back a question, click the "BACK" button on your browser.
   - To move to any question, you can "jump" to it by clicking on the appropriate reference to that question. You may jump from any question to another.

5. **To answer a text or number entry question**: Left-click in the response field with your mouse or use the Tab key to move to where you want to enter data. Type in your answers, then use the mouse or tab key to move to the next field. *Please don't use symbols when entering a numeric response.* For example, If your response is "thirty percent", then enter "30" and if your response is $150,000, then enter "150000."

6. **To answer a single or multiple choice question (radio button or check box)**: Left-click the mouse on the button or check box of your choice. A selected button will fill in with a black dot; a selected checkbox will fill in with an "X". Alternatively, you can use the Tab key to move between the choices and press the Space Bar when your choice is highlighted.

7. **To view historic data:** If your institution submitted data during the last survey cycle (1998) you may view the data. (In some cases, you must respond "yes" to the first part of the question to access the screen with the option to view historic data). For Question 1 only: you can view the historic data and submit the all of the historic data as your 1999 response if there are no changes, or you can modify the data and then submit as your 1999 data. If you think your historic data (1998) is incorrect, please send an email with a description of the problem to facilities@abtassoc.com.

NSF Follow-up Email Text

Dear Institutional Coordinator Name:

Several months ago you were contacted (see attached letter) asking for your help with the 1999 Survey of Scientific and Engineering Research Facilities, cosponsored by the National Science Foundation and the National Institutes of Health. At this time, we have not yet received your institution's completed survey. I am requesting that you finalize your institution's responses to the questionnaire and send it to the contractor, Abt Associates, by (the end of May), either by mail or by the World Wide Web. If you have already completed the survey and sent it in, thank you very much for your time and effort.

As you know, we initially contacted the president of your university who identified you as the person whom we should ask to complete this important survey. At the beginning of June the Director of National Center for Research Resources will be in contact again with each of the presidents with regard to whether the university has completed the survey. Thus, it is especially important that we receive the survey within the next two weeks.

If you choose to submit your institution's data using the World Wide Web and cannot locate your institution's login information, please call Amy Graham at 301-913-0553 and she will provide you with this information. If you would like any other kind of assistance with either the paper survey or the World Wide Web survey, please call or email either myself (703-306-1775 x6910) or Dr. Graham.

For the next cycle of the survey, we are looking for ways to make the survey easier, faster, and more useful and would welcome any comments or suggestions. You may include these comments on your completed survey or you may indicate on your survey that you would like me to contact you to discuss your ideas.

Thank you for your prompt attention and assistance.

Sincerely,
Leslie Christovich
Director
Academic Infrastructure Project

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

nsf

OFFICE OF THE
DIRECTOR

Date

President's Name
Title
Institution
Address

Dear President's Name:

Last November I wrote to you asking for your institution's participation in the biennial Survey of Scientific and Engineering Research Facilities, cosponsored by the National Science Foundation (NSF) and the National Institutes of Health (NIH). You graciously appointed "ICName", "ICTitle", to coordinate your institution's response to the survey. At this time, we have not received a completed survey from your institution.

This survey is conducted at the direction of the U.S. Congress and provides the basis for a September 2000 report to Congress. I regret writing you again but if we do not receive your institution's survey within a very short period of time, it will not be included in the report. We are very concerned about not including your institution's data. This information is very important for NSF in understanding how much funding should be available and how we should fund our programs.

While your institution's participation is voluntary, we are certain that you recognize the importance of this effort. We ask that your institution complete the survey as soon as possible.

The survey can be completed on the World Wide Web (http://www.facilities.abtassoc.com) or on paper. If you require another copy of the survey or additional information, please contact Dr. Leslie Christovich of the Division of Science Resources Studies at the National Science Foundation at 703-306-1775 ext. 6910 or via email at lchristo@nsf.gov. If you wish to learn more about the survey, you may review the highlights of the most recent report to Congress at the above website. Thank you for your assistance in this important matter.

Sincerely,

Rita Colwell

Rita R. Colwell
Director

«ABTID»

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
National Center for
Research Resources
Bethesda, Maryland 20892

Date

President's Name
Title
Institution
Address

Dear President's Name:

Last Winter I wrote to you to request your institution's participation in the biennial Survey of Scientific and Engineering Research Facilities, cosponsored by the National Science Foundation (NSF) and the National Institutes of Health (NIH). You graciously appointed "ICName", "ICTitle" to coordinate your institution's response to the survey. Unfortunately, we have not received a completed survey from your institution.

This survey is conducted at the direction of the U.S. Congress and provides critical information about the state of research facilities in our universities, research institutions, and academic health centers. A previous report indicated that nearly two-thirds of the research facilities cannot accommodate sophisticated research. We need to know whether we are making progress nationally to correct this deficiency. The input from your institution is key to providing data from a spectrum of institutions to Congress on this issue to be sure that our country has the infrastructure in place to conduct state-of-the-art research. This is more important than ever in view of the unprecedented research opportunities that exist.

I regret writing you again, but we very much wish to receive your institution's data. However, we must receive your survey within a very short period of time to include it in the report. The results of this survey will help to determine the status of the nation's scientific research facilities, assist NSF and NIH develop initiatives to address the identified needs, and inform Congress as it sets funding priorities for research facilities. This is the only source of such information for the nation.

While your institution's participation is voluntary, we are certain that you recognize the importance of this effort. Any help you can provide will be greatly appreciated. For convenience, the survey can be completed at http://www.facilities.abtassoc.com on the World Wide Web or on paper. If you require another copy of the survey or additional information, please contact Stephen Seidel of the National Center for Research Resources at NIH on 301-435-0866 or via e-mail at steves@ncrr.nih.gov. If you wish to learn more about the survey, you may review the highlights of the most recent report to Congress at the above website. Thank you for your assistance in this important matter.

Sincerely,

Judith L. Vaitukaitis

Judith L. Vaitukaitis, M.D.
Director

cc: ICName

«ABTID»

OMB CLEARANCE NO. 3145-0101
EXPIRATION DATE: 08/31/2002

National Science Foundation
National Institutes of Health

Institutional Coordinator Name
Title
Dept.
Institution

FY 1999 SURVEY OF SCIENTIFIC AND ENGINEERING RESEARCH FACILITIES

The president or chancellor of your institution named the individual on the label above to coordinate data collection for this survey. Please correct any wrong information on the label.

All information that would permit identification of individuals or institutions will be kept confidential.

Contractor:	Abt Associates Inc.	*Survey Contact:*	Amy E. Graham, Ph.D. E-mail: facilities@abtassoc.com
Technical Assistance:	1-877-551-6139	*Sponsored by:*	National Science Foundation National Institutes of Health
Mailing Address:	ATTN: NSF Facilities Survey 55 Wheeler Street Cambridge MA 02138	*NSF Study Contact:*	Leslie Christovich, Ph.D. lchristo@nsf.gov

Acting out of concerns raised by the academic community, Congress directed the National Science Foundation (NSF) to collect and analyze data about research facilities at universities and colleges and to report to Congress every two years. This survey is in response to that requirement under authorization of the National Science Foundation Act of 1950, as amended. The National Institutes of Health (NIH), cosponsor of the survey, added a sample of biomedical research organizations and independent research hospitals.

The main topics in this year's survey are:

- amount of space in your institution;
- amount and condition of research space in your institution;
- costs of capital projects completed, begun, and planned;
- deferred capital projects; and
- animal research facilities.

We will use the information that you provide for a report that gives a broad, quantitative picture of:

- the cost, availability, and condition of existing science and engineering (S&E) research facilities; and
- the current capital spending by universities and colleges, sources of funding, and plans for future repair/renovation and new construction of S&E research facilities.

Your participation in this survey is voluntary. However, your response is very important to us. Aggregate data from this report are used by Congress, the Executive Branch, many higher education associations, and university and college administrators to help make policy decisions. **NSF and NIH do not use or allow others to use detailed responses in any manner that would identify an individual institution's responses.**

This questionnaire is available on the World Wide Web (www). We strongly urge you to use the electronic version because it's more convenient and reduces the need for follow-up compared to the paper version. Go to http://www.facilities.abtassoc.com to access the web version of the questionnaire. You will need to enter a log-on ID and password; these are attached to the front of this paper questionnaire.

Preparing the information and completing the paper questionnaire requires an average of 24 hours. If you wish to comment on this burden, contact Suzanne H. Plimpton, Reports Clearance Officer, NSF, via email splimpto@nsf.gov or at 703-306-1125. Or contact the Office of Management and Budget, Paperwork Reduction Project (OMB Number 3145-0101), Washington, DC 20503.

Please return the completed survey as soon as possible to:

ATTN: NSF Facilities Survey
55 Wheeler Street
Cambridge MA 02138

If you have a question about a specific item in the survey, please contact Abt Associates, Inc. using the toll-free, technical assistance number: 1-877-551-6139. If you have general comments or concerns about the survey, please contact Dr. Amy Graham at 1-301-913-0553 or at Amy_Graham@abtassoc.com. Thank you for your participation.

GUIDELINES

Refer to these guidelines as you fill out the survey.

1. Electronic questionnaire

You have the option of completing this survey using an electronic version of the questionnaire. We recommend that you use this version: it's more convenient and reduces the need for follow-up. You'll have access to an online help feature, too. To access the Internet version of the survey, just go to www.facilities.abtassoc.com. You will need to enter a log-on ID and a password; these are attached to the front of the survey.

2. Attention: previous survey participants

If your institution participated in the last cycle of this survey, you can review the final data for your institution. You simply go to the study web site, www.facilities.abtassoc.com, and follow the instructions. Where appropriate, you will have the option to use the historical data as your current submission.

3. The definition of research

In this survey, research is defined as all research activities of your institution that are budgeted and accounted for. Research can be funded by the institution itself, the federal government, state governments, foundations, corporations, or other sources.

4. What to include as research facilities

In this survey, the term "research facilities" *includes:*

☑ research laboratories;
☑ controlled-environment space, such as clean or white rooms;
☑ technical-support space, such as carpentry and machine shops;
☑ facilities for laboratory animals, such as animal production colonies, holding rooms, isolation and germ-free rooms;
☑ faculty or staff offices, to the extent that they are used for research;
☑ department libraries, to the extent that they are used for research;
☑ fixed (built-in) equipment, such as fume hoods and benches;
☑ single pieces of non-fixed equipment each costing at least $1 million, such as MRI equipment, and
☑ leased space.

It does *not* include:

☒ facilities that have been designated as federally funded research and development centers (FFRDC);

☒ facilities that are used by faculty, but are not administered by the institution, such as research space at Veterans Administration or other non-university hospitals;

☒ facilities that are administered by your institution but are leased to others for their use.

5. What fields to include as science and engineering (S&E) fields

Because every institution has its own way of classifying fields of study, for consistency, please use the Cross Reference chart (see pages 30-32) to classify areas of study at your institution. The Cross Reference chart identifies the departments that are included within each of the S&E fields used in this survey. The Cross Reference chart is based on the classification of academic departments used by the National Center for Education Statistics.

Please note that if you are unable to separate data for academic departments, you may report the combined data under "Other Sciences, not elsewhere classified." Please also list the fields that those data represent in the space provided.

For this survey, S&E fields *include*:

☑ Engineering
☑ Physical sciences
☑ Earth, atmospheric, and ocean sciences
☑ Mathematics
☑ Computer sciences
☑ Agricultural sciences
☑ Biological sciences
☑ Medical sciences
☑ Psychology (including educational psychology)
☑ Social sciences
☑ Other sciences, not elsewhere classified

They do *not* include:

☒ law, business administration/management (except economics), humanities, history, the arts, or education (except educational psychology).

AMOUNT OF SPACE IN YOUR INSTITUTION

Instructions for completing Item 1

- Item 1 asks about square footage used for research and instruction at your institution. Space is measured in terms of net assignable square feet (NASF), as defined below.
- In determining research NASF, be sure to include leased space used by your institution for your research and any animal research space. You may estimate if exact figures are not available.
- You will have to prorate the NASF in two cases: when space is used for more than one purpose and when space is shared by different S&E fields.

  If space is used for more than one purpose, prorate the NASF to reflect the proportion of use for the activity the item is asking about. For example, if space is used for S&E research only during the summer months (one-fourth of the year), then count 25% of the NASF as S&E research space.

  If space is shared by S&E fields, prorate the NASF to reflect the proportion of use by each field. For example, if space is used equally for research activity in Computer Sciences and Mathematics, count 50% of the NASF as research space for Computer Sciences and 50% for Mathematics.
- To complete the survey, you must classify your institution's departments and programs into "fields." For help in classifying your programs, refer to the Cross Reference chart on pages 30-32. The chart shows each department to be included in each field.
- For institutions using a facilities inventory system based on NCES, NACUBO, or WICHE classifications, in Column 1 ("Instructional NASF"), use only the space that is assigned to functional category 1 (Instruction); in Column 2 ("Research NASF"), use only the space that is assigned to functional category 2 (Research)[1].
- **Definitions:**

  net assignable square feet (NASF): Is the sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF should be measured from the inside faces of walls.

  research: Refers to all research activities of your institution that are budgeted and accounted for. Research can be funded by the institution itself, the federal government, state governments, foundations, corporations, or other sources.

  research space: Refers to the NASF of space in facilities within which research activities take place. Research space may include (to the extent the areas are used for research): research laboratories, controlled-environment space, facilities for laboratory animals, faculty and staff offices, department libraries, and space that houses fixed equipment (i.e. equipment that is built into facilities, such as fume hoods and lab benches) and pieces of non-fixed equipment costing $1 million or more.

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[1] For institutions using a facilities inventory system based on NCES, NACUBO, or WICHE , please refer to the Postsecondary Education Facilities Inventory and Classification Manual, U.S. Department of Education, Office of Educational Research and Improvement, NCES 92-165 , the 1988 NACUBO Taxonomy of Functions; or the 1972 WICHE Program Classification Structure.

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1a. **What was the amount of NASF used for instruction and research in each of the fields listed below at the end of your FY 1999?** *Be sure to include leased space and animal research space. You may estimate if exact figures are not available.*

Past participants: Check here if data have not changed since last submission (1998 survey) _____

S&E FIELD	Instructional NASF	Research NASF	Is any of this research space leased? *(Check all that apply)*
Engineering			
Physical sciences			
Earth, atmospheric, and ocean sciences			
Mathematics			
Computer sciences			
Agricultural sciences			
Biological sciences other than medical school			
Biological sciences in medical school			
Medical sciences other than medical school			
Medical sciences in medical school			
Psychology			
Social sciences			
Other sciences, not elsewhere classified Please list:			
TOTAL #1: ALL S&E FIELDS			
TOTAL #2: ALL NON-SCIENCE FIELDS [for example, law, business administration/ management (except economics), humanities, history, the arts, or education (except educational psychology)]			
TOTAL #3: GRAND TOTAL (sum of Total #1 and Total #2)			

1b. **How much of the total research space for all S&E fields (Total #1 under Research NASF in the table above) is leased?** *If you do not know the exact amount, please provide your best estimate.*

_________________ NASF of leased research space

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AMOUNT OF RESEARCH SPACE

Instructions for completing Item 2

- Item 2 asks about the adequacy of the amount of S&E research space for current research program commitments (in column 1). For fields with inadequate space, please also indicate the additional amount needed (in column 2). Inadequate space is defined as space that is not sufficient to support the needs of your current S&E research program commitments in the field; or non-existent, but needed.

- **New Definitions**:

  research program commitments: Refers to all research and development activities of an institution that are budgeted, approved, and funded.

  Research program commitments *include*:
  - current faculty and staff or those to whom offers have been made,
  - grants awarded, whether or not research has actually begun, and
  - programs which have been approved.

  Research program commitments do *not* include:
  - potential staff without offers,
  - grants applied for but not awarded, and
  - programs designed but not yet approved.

- **Definitions to review:**

  research space: Refers to the NASF of space in facilities within which research activities take place.

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2. Please rate the adequacy of the amount of S&E research space available at your institution.

Past participants: Check here if data have not changed since last submission (1998 survey) ______

Key:

A = *Adequate* sufficient amount of space to support all the needs of your current S&E research program commitments in the field

I = *Inadequate* insufficient space to support the needs of your current S&E research program commitments in the field; Or non-existent, but needed

NA = *Not applicable* No space reported or needed

	Column 1			**Column 2**
	Amount of S&E research space *For each field, circle the one best response*			**If the amount of space is inadequate or is nonexistent but needed:** *Enter additional space needed*
S&E FIELD	**Adequate**	**Inadequate**	**Not Applicable**	**Additional NASF Needed**
Engineering	A	I	N/A	
Physical sciences	A	I	N/A	
Earth, atmospheric, and ocean sciences	A	I	N/A	
Mathematics	A	I	N/A	
Computer sciences	A	I	N/A	
Agricultural sciences	A	I	N/A	
Biological sciences other than medical school	A	I	N/A	
Biological sciences in medical school	A	I	N/A	
Medical sciences other than medical school	A	I	N/A	
Medical sciences in medical school	A	I	N/A	
Psychology	A	I	N/A	
Social sciences	A	I	N/A	
Other sciences, not elsewhere classified Please list:	A	I	N/A	

Instructions for completing Item 3

- Item 3 asks about the condition of S&E research facilities at your institution, where the term "facilities" is defined below. Consider only space supporting your current S&E research program commitments.

- If you have space requiring replacement, please indicate the amount of space that is funded and scheduled for replacement in your FY 2000 or FY 2001 in column 2.

- **New Definitions:**

  research facilities: Refers to the space, fixed equipment, and selected pieces of expensive non-fixed equipment used to conduct research. Research facilities may include the following (to the extent that they are used for research): research laboratories, controlled-environment space, technical-support space, facilities for laboratory animals, faculty or staff offices, department libraries, fixed equipment (such as fume hoods and benches), and single pieces of non-fixed equipment each costing at least $1 million (such as MRI equipment).

  repair/renovation: Refers to both the major and minor repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

  major repair/renovation: Refers to an extensive repair/renovation project that results in facilities that are equivalent, or nearly equivalent, to new facilities in their ability to support S&E research.

- **Definitions to review:**

  research space: Refers to the NASF of space in facilities within which research activities take place.

  research program commitments: Refers to all research and development activities of an institution that are budgeted, approved, and funded. Research program commitments *include:*

  - current faculty and staff or those to whom offers have been made;
  - grants awarded, whether or not research has actually begun; and
  - programs which have been approved.

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3. **Please rate the current condition of your S&E research FACILITIES by indicating the percentage of space that falls into each category. If any of the facilities requires replacement, please indicate the amount funded AND scheduled for replacement in your FY 2000 or FY 2001.**

Past participants: Check here if data have not changed since last submission (1998 survey) ______

Key:

A = Suitable for the most scientifically competitive research in the field

B = Effective for most levels of research in the field, but may require minor repair/renovation

C= Requires major repair/renovation to be used effectively

D = Requires replacement

NA = Not applicable (i.e. no research facilities in the field)

	Column 1						**Column 2**
	Condition of research facilities *For each field, fill in the percentage of research space that falls into each category. Check "not applicable" if no research facilities in field*						**If any space requires replacement as shown in column D:** *Enter the amount funded and scheduled for replacement in your FY 2000 or 2001*
S&E FIELD	**Suitable for most scientifically competitive research (A)**	**Suitable for most levels of research (B)**	**Requires major repair or renovation (C)**	**Requires replacement (D)**	**Total**	**Not Applicable**	**NASF**
Engineering					100%		
Physical sciences					100%		
Earth, atmospheric, and ocean sciences					100%		
Mathematics					100%		
Computer sciences					100%		
Agricultural sciences					100%		
Biological sciences other than medical school					100%		
Biological sciences in medical school					100%		
Medical sciences other than medical school					100%		
Medical sciences in medical school					100%		
Psychology					100%		
Social sciences					100%		
Other sciences, not elsewhere classified Please list:					100%		

COSTS OF CAPITAL PROJECTS

Instructions for completing Item 4

- Item 4 asks for information on repair or renovation of S&E research facilities. Consider only projects that began during your FY 1998 or FY 1999. (Consider the start-date for a project to be the date on which repair/renovation actually began.)
- Include ONLY those projects whose prorated cost is more than $5,000 and less than or equal to $100,000.
- **New definitions:**

  completion costs: Includes costs for planning; site preparation; and repair/renovation of the research space; fixed equipment; non-fixed equipment costing $1 million or more; and building infrastructure.

  building infrastructure: Includes systems that exist in the building and within five feet of the building foundation, such as plumbing, lighting, air exchange, and safety systems.

- **Definitions to review:**

  repair/renovation: Refers to both the major and minor repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

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4. **What is the total dollar amount for completion costs of *repair/renovation* of S&E research facilities, each costing between $5,000 and $100,000 and begun in FY 1998 or FY 1999?**

$ ________________Total completion costs

Instructions for completing Item 5

- Items 5a and 5b ask about both repair/renovation and new construction of S&E research facilities. In both cases, include only individual projects costing over $100,000. Do not total the cost of several small projects and report their combined costs as over $100,000.
- Consider only projects that began during your FY 1998 or FY 1999. (Consider the start-date for a project to be the date on which repair/renovation or new construction actually began.)
- As before, if space is shared by S&E fields, prorate the NASF and cost to reflect the proportion of use by each field. For example, if space is used equally for research activity in Computer Sciences and Mathematics, count 50% of the NASF as research space for Computer Sciences and 50% for Mathematics.
- **New Definitions:**

  new construction: Refers to construction of a new building or additions to an existing building.

  project: Refers to a specific plan or design to construct new space, or repair/renovate or replace existing space.

- **Definitions to review:**

  building infrastructure: Includes systems that exist in the building and within five feet of the building foundation, such as plumbing, lighting, air exchange, and safety systems.

  completion costs: Includes costs for planning; site preparation; and repair/renovation or new construction of the research space; fixed equipment; non-fixed equipment costing $1 million or more; and building infrastructure.

  fixed equipment: Refers to equipment that is built into facilities, such as fume hoods and lab benches.

  net assignable square feet (NASF): The sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF should be measured from the inside faces of walls.

  non-fixed equipment: Refers to equipment that is not built into the facilities. Single pieces of non-fixed equipment must each cost at least $1 million to be included in completion costs (for example, MRI equipment).

  repair/renovation: Refers to the repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

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5a. Did your institution have any individual new construction or repair/renovation of S&E research facilities in your FY 1998 or FY 1999 costing over $100,000? *Be sure to include animal research space.*

Yes_____*(Continue)*

No_____*(Skip to Item 8, page 21)*

5b. Please report the completion costs and NASF for any repair/renovation or new construction of S&E research facilities costing over $100,000. For biological and medical sciences ONLY, please also report completion costs and NASF for just those projects costing over $500,000. *(Note: The costs and NASF of the over-$500,000 projects should be included in columns 1 through 4 as well.)*

S&E FIELD	REPAIR/RENOVATION over $100,000 begun during your FY 1998 or FY 1999		NEW CONSTRUCTION over $100,000 begun during your FY 1998 or FY 1999		REPAIR/ RENOVATION over $500,000 begun during your FY 1998 or FY 1999		NEW CONSTRUCTION over $500,000 begun during your FY 1998 or FY 1999	
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
	Cost	NASF	Cost	NASF	Cost	NASF	Cost	NASF
Engineering								
Physical sciences								
Earth, atmospheric, and ocean sciences								
Mathematics								
Computer sciences								
Agricultural sciences								
Biological sciences other than medical school								
Biological sciences in medical school								
Medical sciences other than medical school								
Medical sciences in medical school								
Psychology								
Social sciences								
Other sciences, not elsewhere classified Please list:								
TOTAL #1: ALL S&E FIELDS								

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5c. Did the cost of any of the repair/renovation or new construction projects include one or more pieces of non-fixed equipment, each costing over $1 million?

Yes_____ *(Continue)*

No_____ *(Skip to Item 6)*

5d. List each field that had one or more pieces of non-fixed equipment, each costing over $1 million. Then, enter the total cost of those pieces of equipment in the table.

List Name of FIELD From Page 15, Item 5b	At least one piece of non-fixed equipment costing over $1 million in REPAIR/RENOVATION	At least one piece of non-fixed equipment costing over $1 million in NEW CONSTRUCTION
______________________	$	$
______________________	$	$
______________________	$	$
______________________	$	$
______________________	$	$

Instructions for completing Item 6

- This item concerns new building construction at your institution during your FY 1998 or FY 1999.
- Please consider all new building construction that contains any S&E research space. However, consider the total completion costs of each new building (and not just the prorated share for construction of research space.)
- Note that this question is the ONLY question in this survey that focuses on buildings per se.

6a. Did you report any NEW CONSTRUCTION projects for S&E facilities in question 5b?

Yes_____ *(Continue)*

No______ *(Skip to Item 7, page 18)*

6b. Did any of the NEW CONSTRUCTION work include a single building with a total project cost (based on total space, not just research space) of at least $25 million?

Yes_____

No______

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Instructions for completing Item 7

- Item 7 asks about sources of funding for S&E research facilities projects in your FY 1998 and FY 1999.
- Consider only projects that began during FY 1998 or FY 1999 that cost over $100,000. (Consider the start-date for a project to be the date on which repair/renovation or new construction actually began).
- Note that if your institution maintains a separate line in your institutional budget that identifies indirect costs recovered from federal grants and/or contracts, you should be able to answer Item 7c.
- **New Definitions:**

  institutional funds: funding for research activities from the institution's operating funds, endowments, indirect costs recovered from federal grants and/or contracts, indirect costs recovered from other sources, etc.

- **Definitions to Review:**

  new construction: Refers to construction of a new building or additions to an existing building.

  repair/renovation: Refers to both the major and minor repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

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7a. What were the various sources of funding for repair/renovation and/or new construction of S&E research facilities in your FY 1998 or FY 1999, each costing over $100,000? *Be sure to include animal research space and be sure your total is consistent with the corresponding totals you reported in 5b.*

SOURCE	Column 1 Dollar amount for REPAIR/RENOVATION projects costing over $100,000	Column 2 Dollar amount for NEW CONSTRUCTION projects costing over $100,000
Federal government		
State or local government		
Private donations		
Institutional funds (see definitions on page 18)		
Tax-exempt bonds		
Other debt financing		
Other sources Please list:		
TOTAL (These totals should equal the corresponding totals in columns 1 and 3, Item 5b, page 15)		

7b. Can you identify the amount of indirect costs recovered from federal grants and contracts? *(Note that these costs are included under "Institutional funds" above.)*

Yes_____*(Continue)*

No_____*(Skip to Item 8, page 20)*

Not applicable, institutional funds are not a source of funds for these projects _____*(Skip to Item 8, page 20)*

7c. What is the amount of indirect costs recovered from federal grants and/or contracts that is included in the "Institutional funds" (row 4) amount listed above?

SOURCE	REPAIR/RENOVATION	NEW CONSTRUCTION
Indirect costs recovered from federal grants/contracts	$	$

Instructions for completing Item 8

- Item 8 asks for information on PLANNED S&E research facilities projects, where "planned" means funded and scheduled but not yet begun. Item 8 also asks for the estimated completion costs for planned projects to extend, repair or renovate central campus infrastructure, which is defined below.

- Consider only projects scheduled to begin during your FY 2000 or FY 2001 whose prorated cost in a given field is over $100,000. Estimate if exact figures are not available

- As before, if space is shared by S&E fields, prorate the NASF and cost to reflect the proportion of use by each field. For example, if space is used equally for research activity in Computer Sciences and Mathematics, count 50% of the NASF as research space for Computer Sciences and 50% for Mathematics.

- **New Definitions:**

  central campus infrastructure: Refers primarily to systems that exist between the buildings of a campus (excluding the area within five feet of any individual building foundation) and to the non-architectural elements of campus design (central wiring for telecommunications systems, storage or disposal facilities, electrical wiring between buildings, central heating and air exchange systems, drains and sewers, roadways, walkways, parking systems, etc.)

  planned project: Refers to a project that is funded and scheduled but on which construction has not yet begun.

- **Definitions to review:**

  building infrastructure: Includes systems that exist in the building and within five feet of the building foundation, such as plumbing, lighting, air exchange, and safety systems.

  fixed equipment: Refers to equipment that is built into facilities, such as fume hoods and lab benches.

  net assignable square feet (NASF): The sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF should be measured from the inside faces of walls.

  new construction: Refers to construction of a new building or additions to an existing building.

  project: Refers to a specific plan or design to construct new space, or repair/renovate or replace existing space.

  repair/renovation: Refers to both the major and minor repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

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8a. Has your institution funded AND scheduled any individual repair/renovation or new construction of S&E research facilities in your FY 2000 or FY 2001 that cost over $100,000?

Yes_____ *(Continue)*

No_____ *(Skip to Item 9, page 23)*

8b. Please report the estimated costs and NASF for any S&E research facilities projects funded and scheduled to begin in your FY 2000 or FY 2001 with an estimated completion cost over $100,000.

FIELD	REPAIR/RENOVATION over $100,000 scheduled to begin in your FY 2000 or FY 2001		NEW CONSTRUCTION over $100,000 scheduled to begin in your FY 2000 or FY 2001	
	Estimated Cost	**Estimated NASF**	**Estimated Cost**	**Estimated NASF**
Engineering				
Physical sciences				
Earth, atmospheric, and ocean sciences				
Mathematics				
Computer sciences				
Agricultural sciences				
Biological sciences other than medical school				
Biological sciences in medical school				
Medical sciences other than medical school				
Medical sciences in medical school				
Psychology				
Social sciences				
Other sciences, not elsewhere classified Please list:				
TOTAL #1: ALL S&E FIELDS				
TOTAL #2: CENTRAL CAMPUS INFRASTRUCTURE (See Definitions on page 20)		☒		☒
TOTAL #3: GRAND TOTAL (sum of Total #1 and Total #2)		☒		☒

DEFERRED CAPITAL PROJECTS

Instructions for completing Item 9

- Item 9 seeks information on deferred S&E research facilities projects, where "deferred projects" are defined below. Item 9 further distinguishes between deferred projects that are and are not included in your institutional plan.

- **New Definitions:**

  deferred project: Refers to a repair/renovation or new construction project that meets all of the following criteria:

  - is necessary to meet your current S&E research program commitments,
  - is not scheduled for your FY 2000 or FY 2001,
  - does not have funding, and
  - is neither for the purpose of developing new programs nor for expanding faculty beyond what is required to fulfill current S&E research program commitments.

  institutional plan: Refers to an institution's approved plan, including goals, strategies, steps, and budgets, for fulfilling the institution's mission during a specific time period.

- **Definitions to Review:**

  building infrastructure: Includes systems that exist in the building and within five feet of the building foundation, such as plumbing, lighting, air exchange, and safety systems.

  central campus infrastructure: Refers primarily to systems that exist between the buildings of a campus (excluding the area within five feet of any individual building foundation) and to the non-architectural elements of campus design (central wiring for telecommunications systems, storage/disposal facilities, electrical wiring between buildings, central heating and air exchange systems, drains and sewers, roadways, walkways, parking systems, etc.)

  fixed equipment: Refers to equipment that is built into facilities, such as fume hoods and lab benches.

  new construction: Refers to construction of a new building or additions to an existing building.

  repair/renovation: Refers to both the major and minor repair/renovation of existing facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, etc.

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9a. Does your institution have any deferred projects for repair/renovation or new construction of S&E research facilities?

Yes_____*(Continue)*
No_____*(Skip to Item 10, page 25)*

9b. Please report the estimated costs of all deferred projects for repair/renovation or new construction of S&E research facilities that are needed, but not scheduled for your FY 2000 or FY 2001.

FIELD	Estimated cost for deferred projects needed for current S&E research program commitments			
	REPAIR/RENOVATION Costs		NEW CONSTRUCTION Costs	
	Included in your institutional plan	Not included in your institutional plan	Included in your institutional plan	Not included in your institutional plan
Engineering				
Physical sciences				
Earth, atmospheric, and ocean sciences				
Mathematics				
Computer sciences				
Agricultural sciences				
Biological sciences other than medical school				
Biological sciences in medical school				
Medical sciences other than medical school				
Medical sciences in medical school				
Psychology				
Social sciences				
Other sciences, not elsewhere classified Please list:				
TOTAL #1: ALL S&E FIELDS				
TOTAL #2: CENTRAL CAMPUS INFRASTRUCTURE (See definition on page 22)				
TOTAL #3: GRAND TOTAL (sum of Total #1 and Total #2)				

Instructions for completing Item 10

- Item 10 asks about facilities for laboratory animals, including both housing and laboratory space, as defined below. Include as laboratory animal facilities both departmental and central facilities that are subject to government and state policies and regulations concerning humane care and use of laboratory animals.

- Do not include in your laboratory animal facilities space:

  - agricultural field buildings sheltering animals that do not directly support research or that are not subject to government regulations concerning humane care and use of laboratory animals; or
  - areas for treatment of animals that are veterinary patients.

- **New Definitions:**

animal housing NASF: Refers to all general animal housing (for example, cage rooms, stalls, wards, isolation rooms) and maintenance areas (for example, feed storage rooms, cage-washing rooms, shops, storage), if these areas directly support research. (Animal housing NASF are Codes 570 and 575 in the *Postsecondary Education Facilities Inventory and Classification Manual.*)

animal laboratory NASF: Refers to all animal laboratory space used exclusively for research activities, such as bench space, animal production colonies, holding rooms, germ-free rooms, surgical facilities, and recovery rooms.

total animal research NASF: Refers to the combined amount of animal laboratory and animal housing NASF.

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10a. Does your institution have facilities for laboratory animals?

Yes_____*(Continue)*

No_____*(Skip to Item 11, page 27)*

10b. Below, fill in the amounts of your *animal housing NASF* and *animal laboratory NASF*. Add the two figures to arrive at your *total animal research NASF*.

____________________ Animal housing NASF

+ ____________________ Animal laboratory NASF

= ____________________ Total animal research NASF

10c. Please indicate whether the total amount of animal research NASF available to your institution is adequate or inadequate. *Please check (√) the one best response.*

Adequate *(i.e. sufficient amount of space to support all the needs of your current S&E research program commitments in the field)* ___

Inadequate *(insufficient space to support the needs of your current S&E research program commitments, or non-existent, but needed)*_____

***If inadequate or non-existent but needed*, please specify the NASF of additional space needed.**

__________________ NASF needed

10d. Please rate the current condition of your animal research facilities by indicating the percentage of space in each category.

	% of space
Suitable for most scientifically competitive research	
Suitable for most levels of scientific research; may require minor repair or renovation	
Requires major repair/renovation to be used effectively	
Requires replacement	
Total	100%

***If any space requires replacement*, how much space is funded and scheduled for replacement in your FY 2000 and FY 2001? ____________________NASF**

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10e. Did your institution have any individual new construction or repair/renovation of facilities for laboratory animals in your FY 1998 or FY 1999, each costing over $100,000?

Yes_____*(Continue)*

No_____*(Skip to Item 10g)*

10f. Please report the completion costs and NASF for any repair/renovation or new construction of facilities for laboratory animals costing over $100,000 and begun during your FY 1998 or 1999.

	REPAIR/RENOVATION		NEW CONSTRUCTION	
	Cost	NASF	Cost	NASF
Facilities for laboratory animals				

10g. Has your institution funded and scheduled any individual new construction or repair/renovation of facilities for laboratory animals in your FY 2000 or FY 2001, each costing over $100,000?

Yes_____*(Continue)*

No_____*(Skip to Item 10i)*

10h. Please fill in estimated costs and NASF for repair/renovation and new construction of facilities for laboratory animals, each costing over $100,000 and scheduled to begin during your FY 2000 or FY 2001.

	REPAIR/RENOVATION		NEW CONSTRUCTION	
	Estimated Cost	NASF	Estimated Cost	NASF
Scheduled for 2000/2001				

10i. Does your institution have a need for specially adaptive animal research facilities? (e.g., facilities for mouse induced mutants; barrier facilities; fish research facilities; or BL-2 or BL-3 facilities for infected research animals?)

Yes _____

No______*(Skip to Item 11, page 27)*

10j. Please specify the type of specially adapted animal research facilities that your institution needs. List up to three types.

1st Type: ____

2nd Type: ____

3rd Type: ____

11. FACILITY and RESPONDENT INFORMATION

***Instructions*: Please answer the following questions about your facility and the respondent(s) completing this questionnaire.**

11a. Are you responding on behalf of a college or university?

Yes______*(Continue)*

No_____*(Skip to question 11g)*

11b. Does your university have a medical school?

Yes ______*(Continue)*

No______*(Skip to question 11e)*

11c. What is the name of the medical school at your college or university?

Please write the name here:____

11d. Did you include S&E research space in the medical school in the responses for your institution?

Yes______

No______

11e. Does your college or university have S&E research space on more than one campus? (Typically, each campus would have separate administrative offices.)

Yes______*(Continue)*

No______*(Skip to question 11g)*

11f. Please list the names of each campus with S&E research space and check (√) whether you included the space at each of these campuses in the responses for your institution.

Name of Campus	Included in response (√ means "yes")

11g. About how many individuals (including yourself) helped to complete this questionnaire?

Number of individuals_____

11h. Please write the title of the people who spent significant time providing data to fill out this questionnaire. If you don't know the person's complete title, please give us what information you can. *Please note that these titles will be removed from the database and are requested as part of our efforts to improve the survey.*

Institutional coordinator______________________________
Title of respondent______________________________
Title of respondent______________________________
Title of respondent______________________________
Title of respondent______________________________

Please indicate approximately how many minutes it took you and anyone else involved to complete this questionnaire

Minutes ☐☐☐

Comments:

Thank you very much for your participation

Return this completed questionnaire in the enclosed pre-paid envelope or mail directly to:

Attn: NSF Facilities Survey
55 Wheeler Street
Cambridge MA 02138

CROSS REFERENCE BETWEEN NSF FIELD CATEGORIES AND THE NCES CLASSIFICATION OF ACADEMIC DEPARTMENTS

Use this chart to identify the departments that are included within each of the science and engineering (S&E) fields used in this survey.

ENGINEERING

101	Aerospace Engineering	
	14.02	Aerospace, aeronautical, and astronautical engineering
102	Agricultural Engineering	
	14.03	Agricultural engineering
103	Biomedical Engineering	
	14.05	Bioengineering and biomedical engineering
104	Chemical Engineering	
	03.0509	Wood sciences
	14.07	Chemical engineering
105	Civil Engineering	
	04.02	Architecture
	14.04	Architectural engineering
	114.08	Civil engineering
	14.14	Environmental health engineering
106	Electrical Engineering	
	14.09	Computer engineering
	14.10	Electrical, electronics, and communications engineering
	14.1002	Microelectronic engineering
107	Engineering Science	
	14.12	Engineering physics
	14.13	Engineering science
108	Industrial Engineering/Management Science	
	14.17	Industrial engineering
	14.27	Systems engineering
	30.06	Systems science
109	Mechanical Engineering	
	14.11	Engineering mechanics
	14.19	Mechanical engineering
110	Metallurgical and Materials Engineering	
	14.06	Ceramic engineering
	14.18	Materials engineering
	14.20	Metallurgical engineering
	40.0701	Metallurgy
111	Mining Engineering	
	14.15	Geological engineering
	14.16	Geophysical engineering
	14.21	Mining and mineral engineering
112	Nuclear Engineering	
	14.23	Nuclear engineering
113	Petroleum Engineering	
	14.25	Petroleum engineering
114	Engineering, not elsewhere classified	
	14.01	Engineering, general
	14.22	Naval architecture and marine engineering
	14.24	Ocean engineering
	14.28	Textile engineering
	14.99	Engineering, other
	19.09	Textiles and clothing (excluding 19.0902, Fashion Design)
	30.03	Engineering and other fields

PHYSICAL SCIENCES

201	Astronomy	
	40.02	Astronomy
	40.03	Astrophysics
	40.09	Planetary science
202	Chemistry	
	40.05	Chemistry
203	Physics	
	40.08	Physics
204	Physical Sciences, not elsewhere classified	
	40.01	Physical sciences, general
	40.0799	Miscellaneous physical sciences, other
	40.099	Physical sciences, other

EARTH, ATMOSPHERIC, AND OCEAN SCIENCES

301	Atmospheric Sciences	
	40.4	Atmospheric sciences and meteorology
302	Geosciences	
	40.06	Geological and related sciences
	40.0703	Earth and planetary sciences
303	Ocean Sciences	
	26.0607	Marine/aquatic biology
	40.0702	Oceanography
304	Earth, Atmospheric, and Ocean Sciences, N.E.C.	

MATHEMATICS

402	Mathematics and Applied Mathematics	
	06.1302	Operations research (quantitative methods)
	27.01	Mathematics, general
	27.03	Applied mathematics
	27.04	Pure mathematics
	27.99	Mathematics, other
	30.08	Mathematics and computer science
403	Statistics	
	27.02	Actuarial sciences
	27.05	Statistics

COMPUTER SCIENCES

401	Computer Sciences	
	06.12	Management information systems
	11	Computer and information sciences, general
	0.09	Imaging science

AGRICULTURAL SCIENCES (SEE ALSO 102 AND 901)

- 501 Agricultural Sciences
  - 02.01 Agricultural sciences, general
  - 02.02 Animal sciences
  - 02.03 Food sciences
  - 02.04 Plant sciences
  - 02.05 Soil sciences
  - 02.99 Agricultural sciences, other
  - 03.01 Renewable natural resources, general
  - 03.03 Fishing and fisheries
  - 03.05 Forestry and related sciences
  - 03.06 Wildlife management
  - 03.99 Renewable natural resources, other
  - 31.04 Water resources

BIOLOGICAL SCIENCES

- 601 Anatomy
  - 18.0201 Clinical anatomy
  - 26.0601 Anatomy
- 602 Biochemistry
  - 18.0202 Clinical biochemistry
  - 26.02 Biochemistry and biophysics
- 603 Biology
  - 26.01 Biology, general
  - 26.0604 Embryology
- 604 Biometry and epidemiology
  - 18.2202 Epidemiology
  - 26.0602 Biometrics and biostatistics
- 605 Biophysics
- 606 Botany
  - 26.03 Botany (excluding 26.0302, Bacteriology; see 611)
- 607 Cell Biology
  - 26.04 Cell and molecular biology
  - 26.0606 Histology
- 608 Ecology
  - 26.0603 Ecology
- 609 Entomology and Parasitology
  - 26.0610 Parasitology
  - 26.07102 Entomology
- 610 Genetics
  - 26.0703 Genetics, human and animal
- 611 Microbiology, Immunology, and Virology
  - 18.0203 Clinical microbiology
  - 18.1002 Allergies and endomology
  - 18.1009 Immunology
  - 26.0302 Bacteriology
  - 26.05 Microbiology
- 612 Nutrition
  - 19.05 Food sciences and human nutrition
  - 20.0108 Food and nutrition
  - 26.0609 Nutritional sciences
- 613 Pathology
  - 18.0204 Clinical pathology
  - 18.1018 Pathology
  - 26.0704 Pathology, human and animal
- 614 Pharmacology
  - 18.0206 Clinical toxicology
  - 26.0612 Toxicology
  - 26.0705 Pharmacology, human and animal
  - 42.14 Psychopharmacology
- 615 Physiology
  - 18.0205 Physiology
  - 26.0706 Physiology, human and animal
- 616 Zoology
  - 26.0701 Zoology
  - 26.0799 Zoology, other
- 617 Biosciences, not elsewhere classified
  - 26.0699 Miscellaneous specialized areas, life sciences, other
  - 26.99 Life sciences, other

MEDICAL SCIENCES (see also 103)

- 701 Anesthesiology
  - 18.1003 Anesthesiology
- 702 Cardiology
- 703 Cancer Research/Oncology
- 704 Endocrinology
  - 26.0605 Endocrinology
  - 705 Gastroenterology
- 706 Hematology
  - 18.08 Hematology
- 707 Neurology
  - 18.1024 Neurology
  - 26.0608 Neurosciences
- 708 Obstetrics and Gynecology
  - 18.1013 Obstetrics and gynecology
- 709 Ophthalmology
  - 18.1014 Ophthalmology
  - 18.12 Optometry
- 710 Otorhinolaryngology
  - 18.1017 Otorhinolaryngology/otolaryngology
- 711 Pediatrics
  - 18.1019 Pediatrics
  - 20.0102 Child development
- 712 Preventive Medicine and Community Health
  - 18.1007 Family practice
  - 18.1022 Preventive medicine
- 713 Psychiatry
  - 18.1023 Psychiatry
  - 18.1106 Psychiatry/mental health
- 714 Pulmonary Disease
- 715 Radiology
  - 18.1012 Nuclear medicine
  - 18.1025 Radiology
  - 26.0611 Radiobiology
- 716 Surgery
  - 18.1004 Colon and rectal surgery
  - 18.1011 Neurological surgery
  - 18.1016 Orthopedic
  - 18.1021 Plastic surgery
  - 18.1026 Surgery
  - 18.1027 Thoracic surgery

717 Clinical Medicine, not elsewhere classified
  18.0299 Basic clinical health sciences, other
  18.1001 Medicine, general
  18.1005 Dermatology
  18.1008 Geriatrics
  18.1010 Internal medicine
  18.1020 Physical medicine and rehabilitation
  18.1028 Urology
  18.1099 Medicine, other
  18.13 Osteopathic medicine
  18.15 Podiatry
  30.01 Biological and physical sciences

718 Dental Sciences
  18.04 Dentistry
  18.1015 Orthodontic surgery

719 Nursing
  18.11 Nursing (excluding 18.1106, Psychiatry/mental health; see 713)

720 Pharmaceutical Sciences
  18.14 Pharmacy

721 Veterinary Sciences
  18.24 Veterinary medicine

722 Health Related, not elsewhere classified
  17.0807 Occupational therapy
  17.0813 Physical therapy
  17.0899 Rehabilitation services, other
  17.99 Allied health, other
  18.07 Health sciences administration
  18.09 Medical laboratory
  18.22 Public health
  18.99 Health sciences, other

723 Speech Pathology and Audiology
  18.01 Audiology and speech pathology

PSYCHOLOGY

801 Psychology
  13.08 School psychology (not including Educational Psychology)
  17.0801 Art therapy
  42 Psychology (including Educational Psychology)

SOCIAL SCIENCES

901 Agricultural Economics
  01.0102 Agricultural business and management
  01.0103 Agricultural economics

902 Anthropology (Cultural and Social)
  45.02 Anthropology
  45.03 Archeology

903 Economics (except Agricultural)
  06.05 Business Economics
  45.06 Economics

904 Geography
  45.07 Geography

905 History and philosophy of science

906 Linguistics
  23.06 Linguistics
  42.12 Psycholinguistics

907 Political Science
  44.01 Public affairs, general
  44.03 Iternational public service
  44.04 Public administration
  44.05 Public policy studies
  44.99 Public affairs, other
  45.09 International affairs
  45.10 Political science and government

908 Sociology
  45.05 Demography
  45.11 Sociology

909 Sociology and Anthropology

910 Social Sciences, not elsewhere classified
  04.03 City, community, and regional planning
  05 Area and ethnic studies
  06.06 Human resources development
  06.15 Organizational behavior
  31.03 Parks and recreational management
  43.01 Criminal justice
  44.02 Community services
  44.07 Social work
  45.01 Social sciences, general
  45.04 Criminology
  45.12 Urban studies
  45.99 Social sciences, other

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